DECelms

digital

Reference

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Order Number: AA-PBWBA-TE

DECelms

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June 1990

This manual is a reference guide to the DECelms (DEC Extended LAN Management Software) commands.

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Contents

Preface

This manual is a reference guide to the DECelms (DEC Extended LAN Management Software) commands.

Intended Audience

This manual is for anyone responsible for planning, configuring, managing, and monitoring the bridges and wiring concentrators in an extended local area network (LAN).

Document Structure

This manual contains reference descriptions of the DECelms commands in alphabetical order. Each command is described in the following format (some sections are not used in every command description):

Heading	Displays the command name and the entity to which the command applies
Overview	Briefly describes the use of the command and refers to the sections of the *DECelms Use* manual that discuss the use of the command in detail
Format	Shows the command syntax
Parameters	Describes the command parameters
Command Domain	Describes the entity information required for the command

Examples	Illustrates the use of the command

You may abbreviate all commands, parameters, and entities to the number of characters that identify them uniquely.

The postage-prepaid Reader's Comments form on the last page of this manual is for your critical evaluation to assist us in preparing future documentation.

Related Documentation

You can find additional information in the following documents:

- *DECelms Use*

  Explains how to use DECelms to configure, monitor, and control the bridges and wiring concentrators in an extended LAN.

- *Bridge and Extended LAN Reference*

  Provides conceptual information on bridge operation, configuration, management, and troubleshooting.

- *FDDI System Level Description*

  Outlines the FDDI standard and Digital's implementation of the standard. Also describes the operation of FDDI adapters, bridges, and wiring concentrators.

- DECelms Release Notes (on line)

  This collection of notes contains information and updates not included in DECelms manuals. The release notes are delivered on line as part of the software distribution kit.

- Help Text (on line)

  A menu-oriented description of the DECelms commands. This information is available at both the DCL prompt ($) and within DECelms.

Conventions Used in This Manual

The following conventions are used in this manual:

Convention	Meaning
`Special Type`	This special type indicates examples of system output or user input. System output is in black type; user input is in red type.
UPPERCASE	Uppercase letters in commands and examples indicate that you should enter the exact characters shown. However, you may enter them in either uppercase or lowercase.
lowercase italics	Lowercase italics in commands and examples indicate variables for which either the user or the system supplies a value.
( )	Parentheses contain default answers to DECelms prompts. To accept the default answer to a prompt, simply press Return.
[ ]	Brackets in command lines indicate that the enclosed value or values are optional. If there is more than one option, you can choose only one of the options. Do not type the brackets when you enter the command.
{ }	Braces indicate that the enclosed text is required and you **must** choose only one of the options. Do not type the braces when you enter the command.
" "	You must include the quotation marks that enclose character strings in commands.
key	Indicates that you should press the specified key. Ctrl/*x* indicates that you should hold down Ctrl while you press the *x* key, where *x* is a letter. Note that, unless otherwise specified, you must terminate a command line by pressing Return.

ADD ADDRESS (Bridge)

The ADD ADDRESS command adds an entry for a physical or multicast address to the forwarding database of a bridge. For physical addresses, the entry identifies the line number on which the bridge should forward frames sent to the address or sets the disposition of frames that contain the address. Multicast address entries can have only a disposition, not a destination line number.

The disposition of the entry instructs LAN Bridge 100 and LAN Bridge 150 models to filter (discard) or forward frames sent to the address of the entry. The LAN Bridge 200 model will also filter or forward frames sent from the address. The DECbridge 500 model will also filter or forward frames received on its Ethernet/IEEE 802.3 line sent from the address. The DECbridge 500 does not apply source address filtering to frames received on its FDDI line.

Depending on the command domain, you can add an address entry to the forwarding database of a specific bridge or to the forwarding databases of all the bridges listed in the DECelms registry. For more information about the forwarding database of a bridge, see Section 4.1 in the *DECelms Use* guide.

Format

ADD ADDRESS *address* { LINE *line-number* | DISPOSITION { FILTER | FORWARD } }
[PASSWORD *password*]

Parameters

address

Specifies the physical or multicast address entry to be added to the forwarding database. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

LINE *line-number*

Specifies the line number on which the bridge will forward frames sent to this address. This parameter is valid only for physical address entries.

DISPOSITION FILTER

Instructs LAN Bridge 100 and LAN Bridge 150 models to filter (discard) frames sent to the specified address. The LAN Bridge 200 model will also filter frames sent from the address. The DECbridge 500 model will also filter frames received on its Ethernet/IEEE 802.3 line sent from the address. The DECbridge 500 does not apply source address filtering to frames received on its FDDI line.

DISPOSITION FORWARD

Instructs the bridge to forward frames sent to the specified address. The LAN Bridge 200 model will also forward frames sent from the address. The DECbridge 500 model will also forward frames received on its Ethernet/IEEE 802.3 line sent from the address. The DECbridge 500 does not apply source address filtering to frames received on its FDDI line.

DISPOSITION FORWARD also instructs LAN Bridge 200 models to forward frames sent from the address when their Manual Filter software switch is set to True (provided that the destination address of the frame also has a management entry set to FORWARD). Note that the bridge will not forward a frame if it has a protocol entry for the frame's protocol with the disposition FILTER.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

ADD ADDRESS can add an address entry to:

- The forwarding database of a specific bridge when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- The forwarding databases of all the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after ADD, the command verb (see Example 2).

Examples

1.
```
ELMS> USE VERRAZANO
ELMS> ADD ADDRESS AA-00-04-33-A1-55 LINE 2 PASSWORD ISLAND
```

These commands add an entry for the physical address AA-00-04-33-A1-55 to the forwarding database of the bridge VERRAZANO. This entry instructs the bridge to forward frames sent to this address on line 2. This management entry overrides the entry for the address added by the bridge's learning process, if any.

2.
```
ELMS> ADD KNOWN BRIDGES ADDRESS AA-00-04-11-25-13 DISPOSITION FILTER
```

This command adds an entry for the physical address AA-00-04-11-25-13 to the forwarding databases of all the bridges listed in the DECelms registry that do not have a password set. This entry instructs LAN Bridge 100 and LAN Bridge 150 models to filter (discard) frames sent to that address. LAN Bridge 200 models will also filter frames sent from the address. DECbridge 500 models will also filter frames received on their Ethernet/IEEE 802.3 lines sent from the address.

3.
```
ELMS> USE VERRAZANO
ELMS> ADD ADDRESS 09-00-03-00-53-33 DISPOSITION FILTER PASSWORD
      ISLAND
```

These commands add an entry with the disposition FILTER for the multicast address 09-00-03-00-53-33 to the forwarding database of the bridge VERRAZANO.

4.
```
ELMS> ADD VERRAZANO ADDRESS 09-00-03-00-A9-63 DISPOSITION FORWARD
      PASSWORD ISLAND
```

This command adds a multicast address entry to the forwarding database of the LAN Bridge 200 named VERRAZANO. This entry instructs VERRAZANO to forward frames sent to or from this address.

ADD PROTOCOL (Bridge)

The ADD PROTOCOL command adds a protocol entry to the protocol database of a LAN Bridge 200 or a DECbridge 500. Protocol entries control the forwarding of frames based on their protocol type. Depending on the command domain, you can add an entry to the protocol database of a specific bridge or to the protocol databases of all the bridges listed in the DECelms registry.

You can add protocol entries for the following types of frames: Ethernet, IEEE 802.3, and IEEE 802.2 SNAP. However, you cannot add the OTHER TYPES, OTHER SAPS, and OTHER SNAPS entries, because these entries are always present in the protocol database. Instead, you must use the SET PROTOCOL command to modify them. (The OTHER TYPES, OTHER SAPS, and OTHER SNAPS entries control the disposition of frames with protocols for which there are no explicit protocol entries.)

For information about adding entries to the protocol database, see Section 4.3.5 in the *DECelms Use* guide. For general information about protocol filtering and the protocol database, see Section 4.3 in the *DECelms Use* guide.

Format

ADD PROTOCOL *protocol-id* DISPOSITION { FILTER | FORWARD }
[PASSWORD *password*]

Parameters

protocol-id

Specifies the protocol value within the frame that the bridge will check.

- For Ethernet frames, this is the 2-byte value, in the form *nn-nn*, contained in the Protocol Type field.
- For IEEE 802.3 frames, this is the 1-byte LSAP protocol code value, in the form *nn*, contained in the DSAP and SSAP fields.

- For IEEE 802.2 SNAP frames, this is the 5-byte value, in the form *nn-nn-nn-nn-nn*, contained in the Protocol ID field. The first 3 bytes are taken from the 24-bit company block identifier assigned by the IEEE; the last 2 bytes are assigned by the owner of the block.

DISPOSITION FILTER

Instructs the bridge to filter (discard) frames that contain the protocol value.

DISPOSITION FORWARD

Instructs the bridge to forward frames that contain the protocol value of the entry.

PASSWORD *password*

Specifies the password of the target LAN Bridge 200 or DECbridge 500. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

ADD PROTOCOL can add a protocol entry to:

- The protocol database of a specific LAN Bridge 200 or DECbridge 500 when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of the bridge.

- The protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after ADD, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> ADD PROTOCOL FE DISPOSITION FILTER PASSWORD HENRY
```

These commands add an entry to the protocol database of the bridge LONGFELLOW. The entry instructs the bridge to discard IEEE 802.3 frames that have the value FE in the SSAP or DSAP fields. These frames contain ISO Connectionless-Mode Network (ISO 8473) protocol information.

2.
```
ELMS> ADD LONGFELLOW PROTOCOL FE DISPOSITION FORWARD PASSWORD HENRY
```

This command instructs the bridge to forward IEEE 802.3 frames that contain ISO 8473 protocol information. This entry would be used for selective protocol forwarding (when OTHER SAPS is set to FILTER with the SET PROTOCOL command).

DELETE (Registry)

The DELETE command deletes a bridge or wiring concentrator entry from the DECelms registry. If the entry does not exist, the command fails. You can delete the entry for a specific bridge or wiring concentrator, delete all the bridge entries, delete all the wiring concentrator entries, or clean out the entire registry. For more information about deleting entries from the DECelms registry, see Section 1.11.5.4 in the *DECelms Use* guide.

Format

DELETE { *device-id* | KNOWN BRIDGES | KNOWN CONCENTRATORS | KNOWN DEVICES }

Parameters

device-id

Specifies the bridge or wiring concentrator entry to be deleted. The *device-id* can be the device name or its 48-bit hardware address. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

KNOWN BRIDGES

Removes all the bridge entries from the registry.

KNOWN CONCENTRATORS

Removes all the wiring concentrator entries from the registry.

KNOWN DEVICES

Cleans out the DECelms registry.

Command Domain

DELETE is valid in all command domains.

Examples

1. ```
   ELMS> DELETE CONCORD
   ```

   This command deletes the DECelms registry entry for the bridge named CONCORD.

2. ```
   ELMS> DELETE 08-00-2B-34-A2-00
   ```

   This command deletes the DECelms registry entry for the wiring concentrator with the address 08-00-2B-34-A2-00.

3. ```
   ELMS> DELETE KNOWN CONCENTRATORS
   ```

   This command removes all the wiring concentrator entries from the DECelms registry.

4. ```
   ELMS> DELETE KNOWN DEVICES
   ```

   This command deletes all the entries from the DECelms registry.

DISABLE (Bridge Line)

When a bridge Ethernet/IEEE 802.3 or FDDI line is the command domain, the DISABLE command prevents any further forwarding activity on the line. For the LAN Bridge 100 and LAN Bridge 150 models, DISABLE also initializes the bridge. Depending on the command domain, you can disable a specific line on a bridge, both lines on a bridge, or both lines on all the bridges listed in the DECelms registry. For more information about disabling bridge lines, see Section 3.3.2 in the *DECelms Use* guide.

Format

DISABLE [PASSWORD *password*]

Parameter

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

DISABLE can disable:

- A specific line on a bridge when the command domain is:

  bridge-id `LINE` *line-number*

  where *bridge-id* is the name or address of the bridge and *line-number* is the line number.

- Both lines on a bridge when the command domain is:

  bridge-id KNOWN LINES

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES KNOWN LINES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after DISABLE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LARS_ANDERSON LINE 1
ELMS> DISABLE PASSWORD CAMBRIDGE

DISABLE PORT command will cause the device to be initialized.
Do you really want to initialize device 08-00-2B-04-8A-21 ? YES
```

These commands disable line 1 on the LAN Bridge 100 named LARS_ANDERSON and initialize the bridge.

2.
```
ELMS> DISABLE LYNN LINE 2 PASSWORD NORTHSHORE
```

This command disables line 2 on the LAN Bridge 200 named LYNN. For LAN Bridge 200 and DECbridge 500 models, the DISABLE command does not initialize the bridge.

DISABLE (Physical Port)

When a physical port on a DECconcentrator 500 is the command domain, the DISABLE command shuts down the physical port. You would use this command to disable a physical port that is oscillating between the BROKEN and INITIALIZING states, as shown in the SHOW STATUS display for the physical port.

NOTE

You cannot enable and disable **just** the physical port on a DECbridge 500. However, you can enable and disable the FDDI line (line 1) as described in Section 3.3 This enables and disables the entire FDDI line, including both the MAC entity and the PHY entity (physical port).

For more information about disabling DECconcentrator 500 physical ports, see Section 3.7.1 in the *DECelms Use* guide.

Format

DISABLE [PASSWORD *password*]

Parameter

PASSWORD *password*

Specifies the password of the target DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN CONCENTRATORS or KNOWN DEVICES, the command acts only on wiring concentrators that do not have a password set and wiring concentrators that have a password that matches the one you supply.

Command Domain

DISABLE can disable:

- A specific physical port on a DECconcentrator 500 when the command domain is:

  concentrator-id PHYPORT *phyport-id*

  where *concentrator-id* is the name or address of the wiring concentrator and *phyport-id* is the physical port number.

- All the physical ports on a DECconcentrator 500 when the command domain is:

  concentrator-id KNOWN PHYPORTS

  where *concentrator-id* is the name or address of the wiring concentrator.

- All the physical ports on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS KNOWN PHYPORTS

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after DISABLE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE NORTHSTATION PHYPORT 1B
ELMS> DISABLE PASSWORD BOSTONGARDEN
```

These commands disable physical port 1B on the wiring concentrator NORTHSTATION.

2.
```
ELMS> DISABLE SOUTHSTATION KNOWN PHYPORTS
      PASSWORD TEAPARTY
```

This command disables all the physical ports on the wiring concentrator SOUTHSTATION.

3.
```
ELMS> USE KNOWN CONCENTRATORS KNOWN PHYPORTS
ELMS> DISABLE PASSWORD FIBEROPTIC
```

This command disables all the physical ports on all the DECconcentrator 500 models listed in the DECelms directory that have the password FIBEROPTIC or do not have a password set.

ENABLE (Bridge Line)

When a bridge Ethernet/IEEE 802.3 or FDDI line is the command domain, the ENABLE command puts the line in an initial PREFORWARDING state and, after a short period of time, the normal FORWARDING state. For the LAN Bridge 100 and LAN Bridge 150 models, ENABLE also initializes the bridge. Depending on the command domain, you can enable a specific line on a bridge, both lines on a bridge, or both lines on all the bridges listed in the DECelms registry. For more information about enabling bridge lines, see Section 3.3.3 in the *DECelms Use* guide.

Format

ENABLE [PASSWORD *password*]

Parameter

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

ENABLE can enable:

- A specific line on a bridge when the command domain is:

  ```
  bridge-id LINE line-number
  ```

  where *bridge-id* is the name or address of a bridge and *line-number* is the line number.

- Both lines on a bridge when the command domain is:

  ```
  bridge-id KNOWN LINES
  ```

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES KNOWN LINES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after ENABLE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE PONT_NEUF LINE 1
ELMS> ENABLE PASSWORD OUI

ENABLE PORT command will cause the device to be initialized.
Do you really want to initialize device 08-00-2B-04-8B-31 ? YES
```

These commands enable line 1 on the LAN Bridge 150 named PONT_NEUF and initialize the bridge.

2.
```
ELMS> ENABLE LYNN LINE 2 PASSWORD NORTHSHORE
```

This command enables line 2 on the LAN Bridge 200 named LYNN. For LAN Bridge 200 and DECbridge 500 models, the ENABLE command does not initialize the bridge.

ENABLE (Physical Port)

When a physical port on a DECconcentrator 500 is the command domain, the ENABLE command reenables normal forwarding activity through the physical port. You would use this command to reenable forwarding on a physical port that was disabled by the DECelms command DISABLE.

NOTE

You cannot enable and disable **just** the physical port on a DECbridge 500. However, you can enable and disable the FDDI line (line 1) as described in Section 3.3 This enables and disables the entire FDDI line, including both the MAC entity and the PHY entity (physical port).

For more information about enabling DECconcentrator 500 physical ports, see Section 3.7.2 in the *DECelms Use* guide.

Format

ENABLE [PASSWORD *password*]

Parameter

PASSWORD *password*

Specifies the password of the target DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN CONCENTRATORS or KNOWN DEVICES, the command acts only on wiring concentrators that do not have a password set and wiring concentrators that have a password that matches the one you supply.

ENABLE

Command Domain

ENABLE can enable:

- A specific physical port on a DECconcentrator 500 when the command domain is:

  concentrator-id PHYPORT *phyport-id*

  where *concentrator-id* is the name or address of the wiring concentrator and *phyport-id* is the physical port number.

- All the physical ports on a DECconcentrator 500 when the command domain is:

  concentrator-id KNOWN PHYPORTS

  where *concentrator-id* is the name or address of the wiring concentrator.

- All the physical ports on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS KNOWN PHYPORTS

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after ENABLE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE ORIENTHEIGHTS PHYPORT 3C
ELMS> ENABLE PASSWORD WONDERLAND
```

These commands enable physical port 3C on the wiring concentrator named ORIENTHEIGHTS.

2.
```
ELMS> ENABLE SOUTHSTATION KNOWN PHYPORTS
      PASSWORD TEAPARTY
```

This command enables all the physical ports on the wiring concentrator SOUTHSTATION.

3.
```
ELMS> USE NORTHSTATION PHYPORT 2B
ELMS> ENABLE PASSWORD CELTICSPRIDE
```

These commands enable physical port 2B on the DECconcentrator 500 named NORTHSTATION.

4.
```
ELMS> USE KNOWN CONCENTRATORS KNOWN PHYPORTS
ELMS> ENABLE PASSWORD FIBEROPTIC
```

This command enables all the physical ports on all the wiring concentrators listed in the DECelms directory that have the password FIBEROPTIC or do not have a password set.

EXIT (DECelms)

The EXIT command terminates DECelms and returns you to the DCL prompt. For more information about terminating DECelms, see Section 1.6 in the *DECelms Use* guide.

Format

EXIT

Parameters

None.

Command Domain

EXIT is valid in all command domains.

Example

```
ELMS> EXIT
$
```

This command terminates DECelms and returns you to the DCL prompt.

FORMAT (DECelms)

The FORMAT command displays the event descriptions from the DECelms event log in a readable format or sends them to a readable file. By default, FORMAT reads the current event log file, ELMS$HOME:ELMS$STATE_CHANGE.LOG, but you can also generate reports from archived event log files. FORMAT displays the report on your screen (the default) or sends it to a file, which DECelms places in the current default directory. For more information about using FORMAT to generate event reports, see Section 1.12 in the *DECelms Use* guide.

Format

FORMAT [FROM *source-file*] [SINCE *dd-mmm-yyyy hh:mm*] [TO *file-spec*]

Parameter

FROM *source-file*

Instructs DECelms to read from the archived event log file that you specify. By default, FORMAT reads from the current event log file, ELMS$HOME:ELMS$STATE_CHANGE.LOG. You must enter this optional phrase directly after FORMAT, the command verb.

SINCE *dd-mmm-yyyy hh:mm*

Limits the report to events generated after the date and time given. Specifying *hh:mm* is optional. By default, the report includes all the events in the file. You must enter this optional phrase after the FROM phrase (if present), and before the TO phrase (if present).

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the file name but not the node name, device name, or directory. DECelms places the file in the current default directory. The TO phrase must be the last phrase in the FORMAT command.

Examples

1.
```
ELMS> FORMAT
```

   This command displays the current event log on the DECelms screen.

2.
```
ELMS> FORMAT SINCE 23-APR-90 11:00 TO EVENTLOG.REPORT
```

   This command sends all the events generated after 11:00 AM on April 23, 1990, to the file EVENTLOG.REPORT. DECelms places this file in the current default directory.

3.
```
ELMS> FORMAT FROM OLDEVENT.LOG
```

   This command displays the events in an archived event log file named OLDEVENT.LOG.

HELP (DECelms)

The HELP command provides help in using DECelms. By default, DECelms displays a menu of the help topics, but you can bypass this menu by entering both HELP and the command for which you want help. For more information about the DECelms help facility, see Section 1.4 in the *DECelms Use* guide.

Format

HELP [*cmd*]

Parameter

[*cmd*]

Specifies the command for which you want help. DECelms displays one or more screens of information about the command. To move to the next screen, press Return. To exit the Help facility, type Ctrl/Z.

Command Domain

HELP is valid in all command domains.

Examples

1.
```
ELMS> HELP

  Information available:

  ADD           DELETE      DISABLE    ENABLE     EXIT      FORMAT    HELP
  INITIALIZE    LIST        MESSAGES   MODIFY     MONITOR   REGISTER
  RELEASE_NOTES             REMOVE     SET        SHOW      START     STOP
  USE

Topic?
```

This command displays a menu of the topics for which help is available.

2. `ELMS> HELP INITIALIZE`

This command displays the help text for the INITIALIZE command.

INITIALIZE (Bridge, Concentrator)

The INITIALIZE command resets a bridge or wiring concentrator just as if it had been physically turned off and on again. The device runs its self-test and automatically enters the OPERATE state. Initializing a device also resets its counters to zero. Depending on the command domain, you can initialize a specific bridge, a specific wiring concentrator, or all the bridges, wiring concentrators, or devices listed in the DECelms registry.

You can simply initialize the device or initialize it and clean out its non-volatile memory (NVRAM). Cleaning out the NVRAM of a device removes any spanning tree parameters, forwarding entries, protocol entries, and other information that was entered with DECelms commands. For more information about initializing bridges and wiring concentrators, see Section 2.2 in the *DECelms Use* guide.

Format

INITIALIZE [WITH DEFAULTS] [PASSWORD *password*]

Parameters

WITH DEFAULTS

Clears the device's NVRAM during initialization, resetting the parameters to the factory default values and removing any forwarding entries, protocol entries, or other information added with DECelms commands.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, DECbridge 500, or DECconcentrator 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

INITIALIZE can initialize:

- A specific bridge or wiring concentrator when the command domain is:

  device-id

  where *device-id* is the name or address of the bridge or wiring concentrator.

- All the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

- All the wiring concentrators listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS

- All the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  KNOWN DEVICES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after INITIALIZE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE FLOOR2TO3
ELMS> INITIALIZE WITH DEFAULTS PASSWORD EVERYWHERE

Command will initialize device FLOOR2TO3 with defaults
Do you really want to initialize device 08-00-2B-0E-00-72 ? YES
```

These commands initialize the bridge named FLOOR2TO3, setting its spanning tree parameters to the factory default values and removing any forwarding entries or protocol entries stored in its NVRAM.

2.
```
ELMS> INITIALIZE KNOWN BRIDGES
```

This command initializes all the bridges listed in the DECelms registry that are LAN Bridge 100 models or that do not have a password set. DECelms displays the confirmation prompt shown in the first example for each bridge in the DECelms registry.

3.
```
ELMS> INITIALIZE KNOWN CONCENTRATORS PASSWORD MEDUSA
```

This command initializes all the wiring concentrators listed in the DECelms registry that have the password MEDUSA or that do not have a password set.

LIST (Registry)

The LIST command displays a device entry in the DECelms registry. Each device entry includes the:

- Device type
- Device name
- Line 1 address (the device address for LAN Bridge 100 and DECconcentrator 500 devices)
- Line 2 address (not displayed for the LAN Bridge 100 or the DECconcentrator 500)
- Description

You can display the information on your screen (the default) or send it to a file. For more information about displaying the DECelms registry, see Section 1.11.6 in the *DECelms Use* guide.

Format

LIST { *device-id* | KNOWN BRIDGES | KNOWN CONCENTRATORS | KNOWN DEVICES } [TO *file-spec*]

Parameter

device-id

Displays the entry for the specified bridge or wiring concentrator. The *device-id* can be the device name or its address. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

KNOWN BRIDGES

Displays all the bridge entries in the DECelms registry.

KNOWN CONCENTRATORS

Displays all the wiring concentrator entries in the DECelms registry.

KNOWN DEVICES

Displays the entire DECelms registry.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

LIST is valid in all command domains.

Examples

1.
```
ELMS> LIST CONCORD
```

This command displays the DECelms registry entry for the bridge named CONCORD.

2.
```
ELMS> LIST 08-00-2B-3A-AC-DC
```

This command displays the DECelms registry entry for the wiring concentrator with the address 08-00-2B-3A-AC-DC.

3.
```
ELMS> LIST KNOWN BRIDGES
```

This command displays all the bridge entries in the DECelms registry.

4.
```
ELMS> LIST KNOWN DEVICES TO DEVICE.LIS
```

This command writes the entire DECelms registry to the file named DEVICE.LIS.

MESSAGES (DECelms)

The MESSAGES command displays the 128 most recent event and error messages in the display window of the DECelms screen display. The messages displayed include the event messages generated by the background poller process and the device listener function, as well as DECelms error and exception condition messages. Using the commands shown on the display window command bar, you can scroll up and down through the messages line by line or screen by screen, send the messages to a file, or search for a specific character string. For more information on displaying messages, see Section 1.8.3.1 in the *DECelms Use* guide.

Format

MESSAGES

Parameters

None.

Command Domain

MESSAGES is valid in all command domains.

Example

```
ELMS> MESSAGES

SHOW: ALARM/Message Window                  As of: 27-APR-1990 14:56:01

Device type incorrect for protocol operations.
DEBAM 08-00-2B-42-A2-71 Invalid Password counter changed from 2 to 3.
27-APR-1990  12:48:57
No Device Address was specified.
Requested value not in protocol database.
```

This command displays the last 128 event and error messages received in the display window of the DECelms screen.

MODIFY (Registry)

The MODIFY command modifies a bridge or wiring concentrator entry in the DECelms registry, regardless of whether the entry was added automatically by the device listener function or manually by the DECelms command REGISTER. The command fails if the entry does not already exist. You can use MODIFY to modify a registry entry in the following ways:

- Change the device name
- Change the device address
- Add or change the device description

For more information about modifying entries in the DECelms registry, see Section 1.11.5.3 in the *DECelms Use* guide.

Format

MODIFY *device-id* { NAME *device-name* | ADDRESS *device-addr* | DESCRIPTION *"desc"* }

Parameters

device-id

Specifies the device entry in the DECelms registry to be modified. The *device-id* can be the existing name or address of the device.

NAME *device-name*

Specifies the new name for the entry. A device name can be up to 31 characters long and must start with a letter. It can contain the letters A to Z, the digits 0 to 9, underscores (_), and dollar signs ($). Letters can be uppercase or lowercase; however, DECelms converts all letters to uppercase in the registry. Device names must be unique within the DECelms registry.

ADDRESS *device-addr*

Specifies the new address for the entry. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*. You need to supply only one of the addresses when changing the address of a bridge that has a separate address for each line. DECelms queries the bridge for the other address.

DESCRIPTION *"desc"*

Specifies the new description for the device. The description can be up to 80 characters enclosed in quotation marks.

Command Domain

MODIFY is valid in all command domains.

Examples

1.
```
ELMS> MODIFY 08-00-2B-33-22-00 NAME CONCORD
```

This command renames the bridge with the address 08-00-2B-33-22-00, giving it the new name CONCORD.

2.
```
ELMS> MODIFY PENNSTATION ADDRESS 08-00-2B-41-A2-00
```

This command changes the address in the registry entry for the wiring concentrator named PENNSTATION. This MODIFY command might be used when a wiring concentrator is replaced.

3.
```
ELMS> MODIFY CONCORD DESCRIPTION "BXB2-2/N13"
```

This command changes the description of the bridge named CONCORD to show its new physical location.

MONITOR (LAN Bridge 200 Line)

The MONITOR command starts the LAN Bridge 200 Line Monitor on a LAN Bridge 200 line, allowing you to monitor the LAN attached to the line. DECelms displays the Network Traffic Summary screen and a menu of the other screens you can display:

- Current PORT Throughput Statistic Display
- Long-Term PORT Throughput Statistic Display
- Peak LAN Utilization and PORT Throughput Statistic Display

For more information about LAN monitoring with the LAN Bridge 200, see Section 5.6 in the *DECelms Use* guide.

Format

MONITOR LINE *line-number* [EVERY *nn* { SECONDS / MINUTES }]

Parameters

LINE *line-number*

Specifies the bridge line on which to start the monitoring function.

EVERY *nn* { SECONDS / MINUTES }

Instructs DECelms to update the display at the specified interval. The default (and minimum) monitoring interval is 6 seconds.

Command Domain

The MONITOR command is valid when a LAN Bridge 200 line is the command domain. You can specify the line number in a separate USE command (see Example 1) or specify the line number directly after MONITOR, the command verb (see Example 2).

Examples

1.
```
ELMS> USE TOWER LINE 2
ELMS> MONITOR EVERY 10 SECONDS
```

These commands start the LAN Bridge 200 Line Monitor on line 2 of the bridge TOWER. The EVERY 10 SECONDS phrase instructs DECelms to update the displayed values every 10 seconds.

2.
```
ELMS> MONITOR TOWER LINE 1 EVERY 30 SECONDS
```

This command monitors line 1 on the bridge TOWER and instructs DECelms to update the displayed values every 30 seconds.

REGISTER (Registry)

The REGISTER command adds a bridge or wiring concentrator entry to the DECelms registry. The entry contains the device's name, its address, and a textual description. DECelms displays an error message if the specified device already has an entry in the registry. Use this command to add device entries manually when the device listener function is disabled or, when the device listener function is running, to add an entry for a device that is installed but not yet transmitting. For more information about adding a device entry to the DECelms registry, see Section 1.11.5.2 in the *DECelms Use* guide.

Format

REGISTER NAME *name* ADDRESS *address* DESCRIPTION *"description"*

Parameters

NAME *name*

Specifies the name for the entry. A device name can be up to 31 characters long and must start with a letter. It can contain the letters A to Z, the digits 0 to 9, underscores (_), and dollar signs ($). Letters can be uppercase or lowercase; however, DECelms converts all letters to uppercase in the registry. Device names must be unique within the DECelms registry.

ADDRESS *address*

Specifies the address of the entry. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*. The device address is printed on a label attached to the back of the device. For LAN Bridge 150, LAN Bridge 200, and DECbridge 500 models, enter either of the line addresses; DECelms will automatically enter the other line address.

DESCRIPTION *"description"*

Specifies a description of the device. The description can be up to 80 characters enclosed in quotation marks.

REGISTER

Command Domain

REGISTER is valid in all command domains.

Examples

1.
```
ELMS> REGISTER NAME LINK2AND3 ADDRESS 08-00-2B-22-3A-14
      DESCRIPTION "Connects 2nd flr with 3rd flr"
```

This command adds an entry to the DECelms registry that assigns the name LINK2AND3 to the bridge with the address 08-00-2B-22-3A-14.

2.
```
ELMS> REGISTER NAME DUNBARTON ADDRESS 08-00-2B-33-12-00
```

This command adds an entry for the bridge with address 08-00-2B-33-12-00, assigning it the name DUNBARTON.

3.
```
ELMS> REGISTER NAME NORTHSTATION ADDRESS 08-00-2B-36-A5-60
      DESCRIPTION "Wiring Concentrator in VXC2-2/N13"
```

This command adds an entry for a wiring concentrator.

REMOVE ADDRESS (Bridge)

The REMOVE ADDRESS command deletes a physical or multicast address entry from the forwarding database of a bridge. However, the bridge's learning process may later enter another entry for a deleted physical address.

To block access to an address permanently, use the ADD ADDRESS command to add an entry for the address with the disposition FILTER. On LAN Bridge 200 and the Ethernet/IEEE 802.3 line of DECbridge 500 models, this will also block access from the station with the address of the entry.

Depending on the command domain, you can delete an address entry from the forwarding database of a specific bridge or from the forwarding databases of all the bridges listed in the DECelms registry. For more information about removing address entries, see Section 4.1.5 in the *DECelms Use* guide.

Format

REMOVE ADDRESS *address* [PASSWORD *password*]

Parameters

address

Specifies the address entry to be deleted. The address can be a physical address or multicast address. It must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

REMOVE ADDRESS can delete an address entry from:

- The forwarding database of a specific bridge when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- The forwarding databases of all the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after REMOVE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> REMOVE ADDRESS AA-00-04-23-84-25 PASSWORD HENRY
```

These commands delete the entry for the physical address AA-00-04-23-84-25 from the forwarding database of the bridge LONGFELLOW.

2.
```
ELMS> REMOVE KNOWN BRIDGES ADDRESS 09-03-04-31-29-33
```

This command deletes the entry for the multicast address 09-03-04-31-29-33 from the forwarding databases of all the bridges listed in the DECelms registry that are LAN Bridge 100 models or that do not have a password set.

REMOVE KNOWN ADDRESSES (Bridge)

The REMOVE KNOWN ADDRESSES command deletes all the address entries that were added with DECelms from the forwarding database of a LAN Bridge 200 or a DECbridge 500. Depending on the command domain, you can delete addresses from the forwarding database of a specific bridge or from the forwarding databases of all the bridges listed in the DECelms registry. For more information about clearing the management entries from the forwarding database of a LAN Bridge 200 or a LAN Bridge 500, see Section 4.2.2 in the *DECelms Use* guide.

Format

REMOVE KNOWN ADDRESSES [PASSWORD *password*]

Parameter

PASSWORD *password*

Specifies the password of the target LAN Bridge 200 or LAN Bridge 500. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

REMOVE KNOWN ADDRESSES can delete all the management entries from:

- The forwarding database of a specific LAN Bridge 200 or DECbridge 500 when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of the bridge.

- The forwarding databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after REMOVE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> REMOVE KNOWN ADDRESSES PASSWORD HENRY
```

These commands delete all the management entries from the forwarding database of the bridge LONGFELLOW. (These address entries were added or modified with DECelms commands.)

2.
```
ELMS> REMOVE KNOWN BRIDGES KNOWN ADDRESSES PASSWORD HENRY
```

This command deletes all the management entries from the forwarding databases of all the LAN Bridge 200 and DECbridge 500 models that either have the password HENRY or that do not have a password set.

REMOVE KNOWN PROTOCOLS (Bridge)

The REMOVE KNOWN PROTOCOLS command deletes all the protocol entries from the protocol database of a LAN Bridge 200 or a DECbridge 500. Depending on the command domain, you can delete the entries from the protocol database of a specific bridge or from the protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry. For more information about cleaning out the protocol database, see Section 4.3.6.2 in the *DECelms Use* guide. For general information about protocol filtering and the protocol database, see Section 4.3 in the *DECelms Use* guide.

Format

REMOVE KNOWN PROTOCOLS [PASSWORD *password*]

Parameter

PASSWORD *password*

Specifies the password of the target LAN Bridge 200 or DECbridge 500. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

REMOVE KNOWN PROTOCOLS can delete all the protocol entries from:

- The protocol database of a specific bridge when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- The protocol databases of all the bridges listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after REMOVE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> REMOVE KNOWN PROTOCOLS PASSWORD HENRY
```

These commands delete all the entries from the protocol database of the bridge LONGFELLOW.

2.
```
ELMS> REMOVE KNOWN BRIDGES KNOWN PROTOCOLS PASSWORD HENRY
```

This command deletes all the entries from the protocol databases of all LAN Bridge 200 and DECbridge 500 models that either have the password HENRY or that do not have a password set.

REMOVE PROTOCOL (Bridge)

The REMOVE PROTOCOL command deletes a protocol entry from the protocol database of a LAN Bridge 200 or a DECbridge 500. Depending on the command domain, you can delete an entry from the protocol database of a specific bridge or from the protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry.

You cannot delete the OTHER TYPES, OTHER SAPS, and OTHER SNAPS entries, which control the disposition of frames with protocols for which there are no explicit protocol entries. Instead, you must use the SET PROTOCOL command to modify the disposition of these entries.

For information about removing an entry from a protocol database, see Section 4.3.6 in the *DECelms Use* guide. For general information about protocol filtering and the protocol database, see Section 4.3 in the *DECelms Use* guide.

Format

REMOVE PROTOCOL *protocol-id* [PASSWORD *password*]

Parameters

protocol-id

Specifies the protocol value within the frame that the bridge will check.

- For Ethernet frames, this is the 2-byte value, in the form *nn-nn*, contained in the Protocol Type field.
- For IEEE 802.3 frames, this is the 1-byte LSAP protocol code value, in the form *nn*, contained in the DSAP and SSAP fields.
- For IEEE 802.2 SNAP frames, this is the 5-byte value, in the form *nn-nn-nn-nn-nn*, contained in the Protocol ID field. The first 3 bytes are taken from the 24-bit company block identifier assigned by the IEEE; the last 2 bytes are assigned by the owner of the block.

PASSWORD *password*

Specifies the password of the target LAN Bridge 200 or DECbridge 500. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

REMOVE PROTOCOL can delete a protocol entry from:

- The protocol database of a specific LAN Bridge 200 or DEC Bridge 500 when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- The protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after REMOVE, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> REMOVE PROTOCOL 08-00-2B-80-40 PASSWORD HENRY
```

These commands delete an IEEE 802.2 SNAP Protocol ID entry from the protocol database of the bridge LONGFELLOW. This entry controlled the disposition of IEEE 802.2 SNAP frames that contained Personal Computing Systems Architecture (PCSA) protocol information (IEEE 802.2 SNAP Protocol ID 08-00-2B-80-40).

2. `ELMS> REMOVE LONGFELLOW PROTOCOL 80-40 PASSWORD HENRY`

This command removes an Ethernet Protocol Type entry from the protocol database of the bridge LONGFELLOW. This entry controlled the disposition of Ethernet frames that contained PCSA protocol information (Ethernet Type 80-40).

SET ADDRESS (Bridge)

The SET ADDRESS command modifies a physical or multicast management address entry in the forwarding database of a bridge. You can modify only entries that were added by the DECelms command ADD ADDRESS, not those that were added by the bridge's learning process.

For physical addresses, you can set the line on which the bridge will forward frames sent to the address or change the disposition of frames that contain the address. The disposition instructs LAN Bridge 100 and LAN Bridge 150 models to forward or filter frames sent **to** the entry's address. The LAN Bridge 200 model will also forward or filter frames sent **from** the address. The DECbridge 500 model will also filter or forward frames received on its Ethernet/IEEE 802.3 line sent **from** the address. The DECbridge 500 does not apply source address filtering to frames received on its FDDI line.

For multicast address entries, you can change only the disposition of the entry, since multicast address entries cannot have a destination line number.

Depending on the command domain, you can modify a management address entry in the forwarding database of a specific bridge or in the forwarding databases of all the bridges listed in the DECelms registry. For more information about modifying management address entries, see Section 4.1.6 in the *DECelms Use* guide. For general information on the forwarding database and address filtering, see Section 4.1.1.

Format

SET ADDRESS *address* { LINE *line-number* | DISPOSITION { FILTER | FORWARD } }
[PASSWORD *password*]

Parameters

address

Specifies the address of the management entry to be modified. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

LINE *line-number*

Specifies the line on which the bridge will forward frames sent to the address. This parameter is valid only for physical addresses.

DISPOSITION FILTER

Instructs LAN Bridge 100 and LAN Bridge 150 models to filter (discard) frames sent to the address of the entry. The LAN Bridge 200 model will also filter frames sent from the address. The DECbridge 500 model will also filter frames received on its Ethernet/IEEE 802.3 line sent from the address. The DECbridge 500 does not apply source address filtering to frames received on its FDDI line.

DISPOSITION FORWARD

Instructs the bridge to forward frames sent to the address of the entry. The LAN Bridge 200 model will also forward frames sent from the address. The DECbridge 500 model will also forward frames received on its Ethernet/IEEE 802.3 line sent from the address. The DECbridge 500 does not apply source address filtering to frames received on its FDDI line.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

SET ADDRESS can modify a management address entry in:

- The forwarding database of a specific bridge when the command domain is:

  bridge-id

where *bridge-id* is the name or address of the bridge.

- The forwarding databases of all the bridges listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE VERRAZANO
ELMS> SET ADDRESS AA-00-04-43-44-95 DISPOSITION FORWARD
      PASSWORD ISLAND
```

These commands modify the entry for the physical address AA-00-04-43-44-95 in the forwarding database of the bridge VERRAZANO. DISPOSITION FORWARD removes the filtering that was in effect for this address, instructing the bridge to forward frames sent to the address.

2.
```
ELMS> SET WHITESTONE ADDRESS 09-00-03-00-33-33 DISPOSITION
      FILTER PASSWORD SUBDIVISION
```

These commands change the disposition of the entry for the multicast address 09-00-03-00-33-33 in the forwarding database of the LAN Bridge 200 named WHITESTONE, instructing the bridge to filter frames sent to or from that address.

3.
```
ELMS> SET WHITESTONE ADDRESS 09-00-03-00-33-33
      DISPOSITION FORWARD PASSWORD SUBDIVISION
```

This command modifies a multicast address entry in the forwarding database of the LAN Bridge 200 named WHITESTONE. This entry instructs WHITESTONE to forward frames sent to or from the multicast address 09-00-03-00-33-33.

SET COST (Bridge Line)

The SET COST command sets the Line Cost spanning tree parameter for a bridge Ethernet/IEEE 802.3 or FDDI line. Depending on the command domain, the SET COST command can set the line cost for a specific line on a bridge, both lines on a bridge, or both lines on all bridges listed in the DECelms registry. For more information about the SET COST command and the Line Cost parameter, see Section 3.1 in the *DECelms Use* guide.

Format

SET COST *cost* [PASSWORD *password*]

Parameters

cost

Specifies the value for the Line Cost spanning tree parameter. The *cost* must be a whole number in the range 1 to 255; the default value is 10.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

SET COST can set the cost for:

- A specific line on a bridge when the command domain is:

  bridge-id **LINE** ***line-number***

where *bridge-id* is the name or address of the bridge and *line-number* is the line number.

- Both lines on a bridge when the command domain is:

  ```
  bridge-id KNOWN LINES
  ```

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES KNOWN LINES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE PRISON_POINT LINE 2
ELMS> SET COST 25 PASSWORD CHARLESTOWN
```

These commands set the Line Cost spanning tree parameter to 25 for line 2 on the bridge PRISON_POINT.

2.
```
ELMS> SET HARVARD KNOWN LINES COST 50
```

This command sets the Line Cost spanning tree parameter to 50 for both lines on the bridge HARVARD, which does not have a password set.

SET CPT (Ethernet/802.3 Line)

The SET CPT command enables or disables the CPT characteristic for a bridge Ethernet/IEEE 802.3 line. (The CPT characteristic does not apply to FDDI lines.) The CPT characteristic informs the bridge whether the transceiver on a bridge line is using the Collision Presence Test, commonly known as "heartbeat." Depending on the command domain, the SET CPT command can set the CPT characteristic for a specific line on a bridge, both lines on a bridge, or both lines on all the bridges listed in the DECelms registry.

The CPT characteristic must be enabled for a line if the transceiver on the line has CPT or disabled if the transceiver does not have CPT. To display the current CPT characteristic setting for a line, enter the SHOW CHARACTERISTICS command for the line and examine the value in the Collision Presence Test Switch display field. For more information about setting the CPT characteristic for a line, see Section 3.2 in the *DECelms Use* guide.

Format

SET CPT { ENABLED / DISABLED } [PASSWORD *password*]

Parameters

ENABLED

Enables the CPT characteristic for the specified line. Set CPT to Enabled if the transceiver on the line is using CPT. The default value of the CPT characteristic is Enabled for LAN Bridge 100 and LAN Bridge 150 models. The default value is Disabled for the LAN Bridge 200 and the Ethernet/IEEE 802.3 line on a DECbridge 500.

DISABLED

Disables the CPT characteristic for the specified line. Set CPT to Disabled if the transceiver on the line is not using CPT. The default value of the CPT characteristic is Enabled for LAN Bridge 100 and LAN Bridge 150 models. The default value is Disabled for the LAN Bridge 200 and the Ethernet/IEEE 802.3 line on a DECbridge 500.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

SET CPT can set the CPT characteristic for:

- A specific line on a bridge when the command domain is:

  ```
  bridge-id LINE line-number
  ```

  where *bridge-id* is the name or address of the bridge and *line-number* is the line number.

- Both lines on a bridge when the command domain is:

  ```
  bridge-id KNOWN LINES
  ```

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES KNOWN LINES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW LINE 1
ELMS> SET CPT ENABLED PASSWORD HENRY
```

These commands enable the CPT characteristic for line 1 on the bridge LONGFELLOW.

2. `ELMS> SET SAGAMORE KNOWN LINES CPT DISABLED`

   This command disables the CPT characteristic for both lines on the LAN Bridge 100 named SAGAMORE.

SET DUMP HOST (Bridge, Concentrator)

The SET DUMP HOST command specifies the physical address of the DECnet-VAX host to which a LAN Bridge 200, DECbridge 500, or DECconcentrator 500 will send an up-line dump request if a fatal error causes the device to crash. SET DUMP HOST NONE clears a previously entered address. The up-line dump feature is available only on the LAN Bridge 200, DECbridge 500, and DECconcentrator 500 models.

The device will send an up-line dump request only if its Up-Line Dump software switch was Enabled with the SET DUMP SWITCH TRUE command (see the description of the SET DUMP SWITCH command). The target host (or a backup host) must be configured to receive up-line dumps. For more information about up-line dumping, see Section 2.4 in the *DECelms Use* guide.

Format

SET DUMP HOST { *host-addr* / NONE } [PASSWORD *password*]

Parameters

host-addr

Specifies the physical address of the DECnet-VAX host to which the bridge or wiring concentrator will send its up-line dump request. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

NONE

Clears a previously entered host address.

PASSWORD *password*

Specifies the password of the target device. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

SET DUMP HOST can set the up-line dump host address for:

- A specific bridge or wiring concentrator when the command domain is:

  device-id

  where *device-id* is the name or address of the device.

- All the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

- All the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS

- All the LAN Bridge 200, DECbridge 500, and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN DEVICES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE TRIBOROUGH
ELMS> SET DUMP SWITCH FALSE PASSWORD QUEENS
ELMS> SET DUMP HOST NONE PASSWORD QUEENS
```

These commands disable the up-line dump function and clear the host address for the bridge TRIBOROUGH.

2. `ELMS> SET KNOWN BRIDGES DUMP HOST AA-00-04-00-32-A3 PASSWORD QUEENS`

   This command specifies the address of the DECnet-VAX host to which failed bridges will send an up-line dump request. The command applies to all the bridges listed in the DECelms registry that have the password QUEENS or do not have a password set. If any bridge fails, it sends an up-line dump request to the specified host.

SET DUMP SWITCH (Bridge, Concentrator)

The SET DUMP SWITCH command sets the Up-Line Dump software switch that instructs a LAN Bridge 200, DECbridge 500, or DECconcentrator 500 to attempt an up-line dump if it encounters a fatal error. (LAN Bridge 100 models do not support up-line dumping.)

The SET DUMP HOST command specifies the physical address of the DECnet-VAX host to which the device will send its up-line dump request (see the SET DUMP HOST command description). If the host does not respond within a timeout period, the device sends a multicast up-line dump request. When an appropriately configured host responds, the device up-line dumps some or all of its memory and register contents. For more information about up-line dumping, see Section 2.4 in the *DECelms Use* guide.

Format

SET DUMP SWITCH { TRUE / FALSE } [PASSWORD *password*]

Parameters

TRUE

Enables the up-line dump function, instructing the device to issue an up-line dump request if it encounters a fatal error.

FALSE

Disables the up-line dump function.

PASSWORD *password*

Specifies the password of the target device. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

SET DUMP SWITCH can set the Up-Line Dump software switch for:

- A specific bridge or wiring concentrator when the command domain is:

  device-id

  where *device-id* is the name or address of the device.

- All the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

- All the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS

- All the LAN Bridge 200, DECbridge 500, and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN DEVICES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE CONCORD
ELMS> SET DUMP SWITCH TRUE PASSWORD RUDEBRIDGE
ELMS> SET DUMP HOST AA-00-04-00-32-A3 PASSWORD RUDEBRIDGE
```

These commands enable up-line dumping on the bridge CONCORD and specify the address of the DECnet-VAX host that is to receive the up-line dump request. If CONCORD encounters a fatal error, it sends an up-line dump request to the host with the physical address AA-00-04-00-32-A3.

2. `ELMS> SET KNOWN DEVICES DUMP SWITCH FALSE`

These commands disable the up-line dump function on all the LAN Bridge 200, DECbridge 500, and DECconcentrator 500 models listed in the DECelms registry that do not have a password set.

SET FRAGMENTATION SWITCH (DECbridge 500)

The SET FRAGMENTATION SWITCH command sets a software switch that controls the fragmentation of Internet Protocol (IP) frames by a DECbridge 500. SET FRAGMENTATION SWITCH ENABLED instructs the bridge to break large Internet Protocol (IP) frames received on its FDDI line into smaller frames that can be transmitted on its Ethernet/IEEE 802.3 line. This fragmentation is necessary because the maximum size for a frame on an FDDI ring is 4500 octets, but only 1518 octets for an Ethernet/IEEE 802.3 segment. The bridge does not fragment frames containing other protocols.

SET FRAGMENTATION SWITCH DISABLED prevents fragmentation of oversized IP frames. The bridge discards all frames received on its FDDI line that are larger than the maximum size allowed on an Ethernet/IEEE 802.3 segment. For more information on IP fragmentation and the SET FRAGMENTATION SWITCH command, see Section 2.7 in the *DECelms Use* manual.

Format

SET FRAGMENTATION SWITCH { ENABLED | DISABLED }
[PASSWORD *password*]

Parameters

ENABLED

Instructs the bridge to fragment large IP frames received on its FDDI line into smaller frames that can be transmitted on its ETHERnet/IEEE 802.3 line. This is the default value of the Fragmentation software switch.

DISABLED

Prevents the bridge from fragmenting oversized IP frames received on its FDDI line. Instead, the bridge discards any frames that are too large to be transmitted on its Ethernet/IEEE 802.3 line.

PASSWORD *password*

Specifies the password of the target DECbridge 500. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

SET FRAGMENTATION SWITCH can set the Fragmentation software switch for:

- A specific DECbridge 500 when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- All the DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE TAPPAN_ZEE
ELMS> SET FRAGMENTATION SWITCH ENABLED PASSWORD YONKERS
```

These commands enable the Fragmentation software switch on the bridge TAPPAN_ZEE, instructing it to fragment large IP frames received on its FDDI line into smaller frames that can be transmitted on its Ethernet/IEEE 802.3 line.

2. `ELMS> SET KNOWN BRIDGES FRAGMENTATION SWITCH DISABLED`

   This command disables the Fragmentation software switch on all the DECbridge 500 models listed in the DECelms registry that do not have a password set. These bridges will discard large IP frames received on their FDDI lines instead of fragmenting them.

SET LEM THRESHOLD (Physical Port)

The SET LEM THRESHOLD command sets the link error monitor (LEM) threshold for a physical port on a DECbridge 500 or a DECconcentrator 500. The LEM monitors the bit error rate (BER) on the physical port during normal operation. When the bit error rate rises above the LEM threshold, the station disables the physical port, preventing it from disrupting the ring. For more information about setting the LEM threshold for a physical port, see Section 3.8 in the *DECelms Use* guide.

Format

SET LEM THRESHOLD *lem-threshold* [PASSWORD *password*]

Parameters

lem-threshold

Specifies the LEM threshold to be set for the physical port. The threshold is expressed as the absolute value of the exponent of the error rate. For example, if the error rate threshold is to be 10 to the -7th (0.0000001), enter 7 for the *lem-threshold* value. The legal range for the LEM threshold is 5 through 8, corresponding to the range of error rates, which is 10 to the -5th (0.00001) through 10 to the -8th (0.00000001).

PASSWORD *password*

Specifies the password of the target DECbridge 500 or DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

SET LEM THRESHOLD

Command Domain

SET LEM THRESHOLD can set the LEM threshold for:

- The physical port on a DECbridge 500 or a specific physical port on a DECconcentrator 500 when the command domain is:

  device-id PHYPORT *phyport-id*

  where *device-id* is the name or address of the device and *phyport-id* is the physical port number. (The physical port number on a DECbridge 500 is 1.)

- All the physical ports on a DECconcentrator 500 when the command domain is:

  concentrator-id KNOWN PHYPORTS

  where *concentrator-id* is the name or address of the wiring concentrator.

- The physical port on all the DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES PHYPORT 1

- All the physical ports on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS KNOWN PHYPORTS

- All the physical ports on all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN DEVICES KNOWN PHYPORTS

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE NORTHSTATION PHYPORT 1A
ELMS> SET LEM THRESHOLD 7 PASSWORD BOSTONGARDEN
```

These commands set the LEM threshold to 10 to the -7 (0.0000001) for physical port 1A on the wiring concentrator NORTHSTATION.

2.
```
ELMS> SET SOUTHSTATION KNOWN PHYPORTS LEM THRESHOLD 6
      PASSWORD TEAPARTY
```

This command set the LEM threshold to 10 to the -6 (0.000001) for all the physical ports on the wiring concentrator SOUTHSTATION.

3.
```
ELMS> USE GOLDENGATE PHYPORT 1
ELMS> SET LEM THRESHOLD 5 PASSWORD LIFESTYLE
```

This command sets the LEM threshold to 10 to the -5 (0.00001) for the physical port on the DECbridge 500 named GOLDENGATE.

SET LOAD FILE (Bridge)

The SET LOAD FILE command specifies the software identification of the file that a LAN Bridge 100, LAN Bridge 150, or LAN Bridge 200 will request from a down-line load host. SET LOAD FILE NONE clears a previously entered software identification, indicating that the host should down-line load the default down-line load file.

When the bridge receives the SET LOAD SWITCH TRUE command or when the bridge hardware switch with the same function is set to ON, the bridge requests a down-line load upon initialization. If the bridge does not request a specific file, the down-line load host loads the default down-line load file. Note that only LAN Bridge 100 and LAN Bridge 150 models support down-line loading of LAN Traffic Monitor (LTM) software.

Depending on the command domain, the SET LOAD FILE command can specify the software identification of the down-line load file for a specific bridge or for all the bridges listed in the DECelms registry. For more information about down-line loading, see Section 2.5 in the *DECelms Use* guide.

Format

SET LOAD FILE { *file-spec* / NONE } [PASSWORD *password*]

Parameters

file-spec

Specifies the software identification of the down-line load file that the bridge will request from the down-line load host. The software identification must be 10 characters long and follow the DECnet-VAX file-naming conventions.

NONE

Clears the previously set software identification, indicating that the down-line load host should load the default down-line load file.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150 or LAN Bridge 200. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge is a LAN Bridge 100 or does not have a password set.

If the command domain is KNOWN BRIDGES or KNOWN DEVICES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

SET LOAD FILE can specify the software identification of the down-line load file for:

- A specific bridge when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- All the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE MYSTIC_RIVER
ELMS> SET LOAD SWITCH TRUE
ELMS> SET LOAD FILE LTMLIS0309
```

These commands set the Down-Line Load software switch to True and specify the software identification of the file that the LAN Bridge 100 named MYSTIC_RIVER will request from the down-line load host. MYSTIC_RIVER will request a down-line load of this file upon initialization.

2. `ELMS> SET KNOWN BRIDGES LOAD FILE NONE`

   This command clears the previously set down-line load file identification for all the bridges listed in the DECelms registry that are LAN Bridge 100 models or do not have a password set. When one of these bridges requests a down-line load, the down-line load host will load the default down-line load file.

SET LOAD SWITCH (Bridge)

The SET LOAD SWITCH command sets a software switch that controls the down-line loading of software to a LAN Bridge 100, LAN Bridge 150, or LAN Bridge 200. If the Down-Line Load hardware switch is OFF (disabled), you can enter SET LOAD SWITCH TRUE to override the setting of the hardware switch. SET LOAD SWITCH TRUE instructs the target bridge to request a down-line load of software upon initialization. The SET LOAD FILE command specifies the software identification of the down-line load file that the bridge will request.

SET LOAD SWITCH FALSE disables the software switch, causing the target bridge to load the software stored in its NVRAM upon initialization instead of requesting a down-line load. Note that only the LAN Bridge 100 and LAN Bridge 150 models support down-line loading of LAN Traffic Monitor (LTM) software. For more information on down-line loading bridges, see Section 2.5 in the *DECelms Use* guide.

Format

SET LOAD SWITCH { TRUE / FALSE } [PASSWORD *password*]

Parameters

TRUE

Enables the down-line load function, instructing the bridge to request a down-line load of software upon initialization.

FALSE

Disables the down-line load function, instructing the bridge to load the software stored in its NVRAM upon initialization. Note that a LAN Bridge 100 or LAN Bridge 150 cannot serve as a bridge unless its Down-Line Load hardware switch is also set to OFF (disabled).

PASSWORD *password*

Specifies the password of the target LAN Bridge 150 or LAN Bridge 200. (LAN Bridge 100 models do not have passwords.) The command

fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge is a LAN Bridge 100 or does not have a password set.

If the command domain is KNOWN BRIDGES or KNOWN DEVICES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

SET LOAD SWITCH can set the Down-Line Load software switch for:

- A specific bridge when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- All the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE TAPPAN_ZEE
ELMS> SET LOAD SWITCH TRUE
ELMS> SET LOAD FILE LTMLIS0309
```

These commands set the Down-Line Load software switch to True and specify the software identification of the LTM image that the LAN Bridge 100 named TAPPAN_ZEE will request from the down-line load host. The next time TAPPAN_ZEE is initialized, it will request the LTM image file LTMLIS0309.

2.
```
ELMS> SET KNOWN BRIDGES LOAD SWITCH FALSE
```

This command disables the Down-Line Load software switch for all the bridges listed in the DECelms registry that are LAN Bridge 100 models or do not have a password set.

3.

```
ELMS> SET QUEENSBORO LOAD SWITCH TRUE PASSWORD GARDENCITY
ELMS> INITIALIZE QUEENSBORO PASSWORD GARDENCITY

Command will initialize device QUEENSBORO
After initialization, device 08-00-2B-A1-93-26 will be loaded
with image
Do you really want to initialize device 08-00-2B-A1-93-26 ? YES
```

The first command sets the Down-Line Load software switch on the bridge QUEENSBORO to True. The second command initializes the bridge, causing it to request a down-line load of software. The responding host will send its default down-line load file.

SET MANUAL FILTER SWITCH (LAN Bridge 200)

The SET MANUAL FILTER SWITCH command sets a software switch that controls the forwarding database of a LAN Bridge 200. When the switch is set to True, the bridge:

- Deletes all the entries added by the bridge's learning process from its forwarding database
- Stops its learning process
- Forwards only frames with source **and** destination addresses that have entries added by DECelms with the disposition FORWARD

When the Manual Filter software switch is set to False, the default setting, the bridge forwards and filters normally and adds learned entries to its forwarding database.

Depending on the command domain, you can set the Manual Filter software switch for the forwarding database of a specific bridge or for the forwarding databases of all the LAN Bridge 200 models listed in the DECelms registry. For more information on this command and the LAN Bridge 200 forwarding database, see Section 4.2 in the *DECelms Use* guide.

Format

SET MANUAL FILTER SWITCH { TRUE / FALSE } [PASSWORD *password*]

Parameters

TRUE

Instructs the bridge to delete all the entries for addresses added by the bridge's learning process from its forwarding database, stop its learning process, and forward only frames with source **and** destination addresses that have entries added by DECelms with the disposition FORWARD.

FALSE

Instructs the bridge to forward and filter normally, adding entries for the addresses identified by the bridge's learning process to its forwarding database.

PASSWORD *password*

Specifies the password of the target LAN Bridge 200. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

Command Domain

SET MANUAL FILTER SWITCH can control the forwarding database of:

- A specific LAN Bridge 200 when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of the bridge.

- All the LAN Bridge 200 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> SET MANUAL FILTER SWITCH TRUE PASSWORD HENRY
```

These commands set the bridge LONGFELLOW's Manual Filter software switch to True. LONGFELLOW will immediately delete the entries added by the bridge's learning process, if any, from its forwarding database, suspend its learning process, and forward only frames with

source and destination addresses that have management entries set to FORWARD.

2.
```
ELMS> SET BRIDGE LONGFELLOW MANUAL FILTER SWITCH FALSE
      PASSWORD HENRY
```

This command sets the bridge LONGFELLOW's Manual Filter software switch to False, instructing LONGFELLOW to resume normal learning and forwarding.

SET MAXIMUM TRT (FDDI Line)

The SET MAXIMUM TRT command sets the value of the maximum token rotation timer (the ANSI parameter T_Max) for the FDDI MAC entity of a DECbridge 500 or a DECconcentrator 500. A station's maximum TRT value serves two major purposes. First, it is the maximum target token rotation time (TTRT, the ANSI parameter T_Neg) that the station will allow to be negotiated in the claim token process. The resulting TTRT value serves as the TRT timer value for all stations on the ring. The stations use the TRT timer to control ring scheduling during normal operation and to detect and recover from serious ring errors.

Secondly, the maximum TRT value controls station operation during the claim token process itself. If the station has stopped bidding and is waiting for some other station to initialize the ring, the station resumes bidding when its maximum TRT expires. If maximum TRT expires when the station is still bidding, the claim token process has failed to recover the ring. The station enters the beacon process, a more drastic recovery procedure. For more information on setting maximum TRT, see Section 3.5 in the *DECelms Use* guide.

Format

SET MAXIMUM TRT *max-trt* [PASSWORD *password*]

Parameters

max-trt

Specifies the maximum target rotation time (TRT) for the FDDI MAC entity of the station. The legal range for maximum TRT is 167.77216 milliseconds to 1336.9344 milliseconds. The default value is 167.77216 milliseconds. The maximum TRT value for a station must be greater than or equal to its requested TRT value.

PASSWORD *password*

Specifies the password of the target DECbridge 500 or DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include

PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

SET MAXIMUM TRT can set the maximum TRT for:

- The FDDI MAC entity of a specific DECbridge 500 or DECconcentrator 500 when the command domain is:

  ```
  device-id LINE 1
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator. On both devices, the FDDI MAC entity is line 1.

- The FDDI MAC entity of all the DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES LINE 1
  ```

- The FDDI MAC entity of all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS LINE 1
  ```

- The FDDI MAC entity of all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES LINE 1
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE NORTHSTATION LINE 1
ELMS> SET MAXIMUM TRT 185 PASSWORD BOSTONGARDEN
```

These commands set the maximum token rotation time to 185.0 milliseconds for the FDDI MAC entity of the wiring concentrator NORTHSTATION.

2.
```
ELMS> SET KNOWN BRIDGES LINE 1 MAXIMUM TRT 250 PASSWORD FDDI
```

This command sets the maximum token rotation time to 250.0 milliseconds for all the DECbridge 500 models listed in the DECelms registry that have the password FDDI or do not have a password set.

SET NEW PASSWORD (Bridge, Concentrator)

The SET NEW PASSWORD command sets a new password for a LAN Bridge 150, LAN Bridge 200, DECbridge 500, or DECconcentrator 500. (LAN Bridge 100 models do not have passwords.) Bridges are shipped from the factory with no password set. When setting the password on a new bridge, enter quotation marks ("") to show that the bridge currently has no password set. For more information about setting passwords, see Section 2.1 in the *DECelms Use* guide.

Format

SET NEW PASSWORD *new-password* PASSWORD *old-password*

Parameters

new-password

Specifies the new password for the device. A password must be 6 to 12 characters long and can consist of letters and numerals from the ISO Latin-1 character set, hyphens (-), and underscores (_).

PASSWORD *old-password*

Specifies the current password for the device. If the device does not have a password set, enter "" for *old-password*.

Command Domain

SET NEW PASSWORD can set a password for:

- A specific bridge or wiring concentrator when the command domain is:

  device-id

  where *device-id* is the name or address of the bridge or wiring concentrator.

- All the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

- All the wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS
  ```

- All the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE HARVARD
ELMS> SET NEW PASSWORD CANTABRIDGIAN PASSWORD ""
```

These commands set a password for the bridge HARVARD, which currently does not have a password set.

2.
```
ELMS> SET GRANDCENTRAL NEW PASSWORD MODERN PASSWORD ANTIQUE
```

This command changes the password for the wiring concentrator GRANDCENTRAL from ANTIQUE, its current password, to MODERN.

SET PROTOCOL (Bridge)

The SET PROTOCOL command changes the disposition of a protocol entry in the protocol database of a LAN Bridge 200 or a DECbridge 500. Depending on the command domain, you can change the disposition of an entry in the protocol database of a specific bridge or in the protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry. For more information about modifying the disposition of an entry, see Section 4.3.7 in the *DECelms Use* guide. For general information about protocol filtering and the protocol database, see Section 4.3 in the *DECelms Use* guide.

Format

SET PROTOCOL { *protocol-id* | OTHER TYPES | OTHER SAPS | OTHER SNAPS }

DISPOSITION { FILTER | FORWARD } [PASSWORD *password*]

Parameters

protocol-id

Specifies the value of the protocol entry to be modified.

- For Ethernet frames (ETHERNET TYPE), this is a 2-byte value, in the form *nn-nn*, contained in the Protocol Type field.
- For IEEE 802.3 frames, this is the 1-byte LSAP protocol code value, in the form *nn*, contained in the DSAP and SSAP fields.
- For IEEE 802.2 SNAP frames, this is the 5-byte value, in the form *nn-nn-nn-nn-nn*, contained in the Protocol ID field. The first 3 bytes are taken from the 24-bit company block identifier assigned by the IEEE; the last 2 bytes are assigned by the owner of the block.

OTHER TYPES

Modifies the entry that controls the disposition of Ethernet frames with Protocol Type values for which there are no explicit entries.

OTHER SAPS

Modifies the entry that controls the disposition of IEEE 802.3 frames with IEEE 802.2 LSAP protocol codes for which there are no explicit entries.

OTHER SNAPS

Modifies the entry that controls the disposition of IEEE 802.2 SNAP frames with Protocol IDs for which there are no explicit entries.

DISPOSITION FILTER

Instructs the bridge to filter (discard) frames that contain the specified protocol.

DISPOSITION FORWARD

Instructs the bridge to forward frames that contain the specified protocol. Note that the bridge will not forward the frame if there is an entry for the frame's source or destination address with the disposition FILTER, or if the bridge's Manual Filter software switch is set to Filter and there are no entries for the frame's source **and** destination addresses with the disposition FORWARD.

PASSWORD *password*

Specifies the password of the target LAN Bridge 200 or DECbridge 500. The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on bridges that do not have a password set and bridges that have a password that matches the one you supply.

SET PROTOCOL

Command Domain

SET PROTOCOL can modify a protocol entry in:

- The protocol database of a specific LAN Bridge 200 or DECbridge 500 when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of a bridge.

- The protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> SET PROTOCOL 60-04 DISPOSITION FORWARD PASSWORD HENRY
```

These commands instruct the bridge LONGFELLOW to forward Ethernet frames that contain LAT protocol information (Ethernet Protocol Type 60-04).

2.
```
ELMS> SET LONGFELLOW PROTOCOL 08-00-2B-80-3B DISPOSITION FILTER
      PASSWORD HENRY
```

This command instructs the bridge LONGFELLOW to discard IEEE 802.2 SNAP frames that contain the value 08-00-2B-80-3B in the Protocol ID field. These frames contain VAXELN protocol information.

SET REQUESTED TRT (FDDI Line)

The SET REQUESTED TRT command sets the token rotation time (TRT, the ANSI parameter T_Req) value that the FDDI MAC entity of a DECbridge 500 or DECconcentrator 500 will bid for in the claim token process. The claim token process sets the target token rotation time (TTRT, the ANSI parameter T_Neg) used by all stations on the ring and determines the station that will originate the token. The station with the lowest requested TRT value, longest address, and highest address wins the claim token process. The winning station establishes its requested TRT value as the target token rotation time (TTRT) and initializes the token. For more information on setting requested TRT, see Section 3.4 in the *DECelms Use* guide.

Format

SET REQUESTED TRT *requested-trt* [PASSWORD *password*]

Parameters

requested-trt

Specifies the token rotation time (TRT) that the FDDI MAC entity of the station will request in the claim token negotiation process. The legal range is 4.0 milliseconds to 1342.1568 milliseconds. The default value is 8.0 milliseconds. Digital recommends that you leave requested TRT at its default setting for all stations unless you have a clearly defined reason for setting a different value. A higher requested TRT value increases the efficiency of the ring, but also increases the access delay. For most networks, 8.0 milliseconds is the best compromise between high efficiency and rapid access time.

PASSWORD *password*

Specifies the password of the target DECbridge 500 or DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

SET REQUESTED TRT can set the requested TRT for:

- The FDDI MAC entity of a specific DECbridge 500 or DECconcentrator 500 when the command domain is:

  ```
  device-id LINE 1
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator. On both devices, the FDDI MAC entity is line 1.

- The FDDI MAC entity of all the DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES LINE 1
  ```

- The FDDI MAC entity of all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS LINE 1
  ```

- The FDDI MAC entity of all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES LINE 1
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE GRANDCENTRAL LINE 1
ELMS> SET REQUESTED TRT 7 PASSWORD CELESTIAL
```

These commands set the requested token rotation time to 7.0 milliseconds for the wiring concentrator GRANDCENTRAL. GRANDCENTRAL will bid for this value in its claim frames during the claim token process.

2.
```
ELMS> SET SUNSHINESKYWAY LINE 1 REQUESTED TRT 9
      PASSWORD ALLIGATOR
```

This command sets the requested token rotation time to 9.0 milliseconds for the DECbridge 500 named SUNSHINESKYWAY.

SET SPANNING CHARACTERISTICS (Bridge)

The SET SPANNING CHARACTERISTICS command sets the spanning tree parameters for a bridge. Depending on the command domain, you can set the spanning tree parameters for a specific bridge or for all the bridges listed in the DECelms registry.

When you enter this command, DECelms prompts you for each of the settable spanning tree parameters as shown here, displaying its current value in parentheses. To retain the current value, press Return. To change the value, enter the new value and press Return.

```
Root Priority (128) ?
Forwarding Database Normal Aging Time (120) ?
Forwarding Database Short Aging Time (30) ?
Bad Hello Limit (15) ?
Bad Hello Reset Interval (5) ?
No Frame Interval (300) ?
Hello Interval (1) ?
Listen Time (15) ?
Forwarding Delay (30) ?
Lan Bridge 100 Poll Time (300) ?
Lan Bridge 100 Response Timeout (15) ?
Lan Bridge 100 Spanning Tree Compatibility (Auto-Select) ?
```

To set all the spanning tree parameters to their factory default values, specify the TO DEFAULTS parameter. DECelms initializes the bridge and resets the parameters without prompting you further. For more information about this command and the spanning tree parameters, see Section 2.3 in the *DECelms Use* guide.

Format

SET SPANNING CHARACTERISTICS [TO DEFAULTS]
[PASSWORD *password*]

Parameters

TO DEFAULTS

Sets all the spanning tree parameters to their factory default values and initializes the bridge.

PASSWORD *password*

Specifies the password of the target LAN Bridge 150, LAN Bridge 200, or DECbridge 500. (LAN Bridge 100 models do not have passwords.) The command fails if the password that you supply does not match the one stored in the target bridge, if any. If you do not include PASSWORD and a password, the command fails unless the target bridge does not have a password set.

If the command domain is KNOWN BRIDGES, the command acts only on LAN Bridge 100 models, bridges that do not have a password set, and bridges that have a password that matches the one you supply.

Command Domain

SET SPANNING CHARACTERISTICS can set spanning tree parameters for:

- A specific bridge when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of a bridge.

- All the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONDON
ELMS> SET SPANNING CHARACTERISTICS TO DEFAULTS PASSWORD ENGLAND
```

These commands set the spanning tree parameters for the bridge LONDON to the factory default values and then initialize the bridge.

2.
```
ELMS> SET PEACE SPANNING CHARACTERISTICS PASSWORD USCANADA
```

This command instructs DECelms to prompt for each of the settable spanning tree parameters for the bridge PEACE, with the parameter name followed by the current setting. To retain the current value, press Return; to change the value, enter a new value and press Return.

SET TVX (FDDI Line)

The SET TVX command sets the value of the valid transmission timer for the FDDI MAC entity of a DECbridge 500 or a DECconcentrator 500. Each FDDI station has a valid transmission timer (TVX) that detects token loss on the ring, excessive noise, and other faults. The station resets its valid transmission timer to zero upon receipt of the ending delimiter of a valid frame or nonrestricted token. The timer expires when the time since the last valid transmission exceeds the TVX value set for the station. When the valid transmission timer expires, the station starts the claim token process, which initializes the ring and creates a new token. For more information on setting the valid transmission timer, see Section 3.6 in the *DECelms Use* guide.

Format

SET TVX *tvx-value* [PASSWORD *password*]

Parameters

tvx-value

Specifies the value for the valid transmission timer (TVX) of the FDDI MAC entity. The legal range for the valid transmission timer is 2.35 milliseconds to 5.224 milliseconds. The default value is 2.62144 milliseconds.

PASSWORD *password*

Specifies the password of the target DECbridge 500 or DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

SET TVX can set the valid transmission timer for:

- The FDDI MAC entity of a specific DECbridge 500 or DECconcentrator 500 when the command domain is:

  ```
  device-id LINE 1
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator. On both devices, the FDDI MAC entity is line 1.

- The FDDI MAC entity of all the DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES LINE 1
  ```

- The FDDI MAC entity of all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS LINE 1
  ```

- The FDDI MAC entity of all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES LINE 1
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE GRANDCENTRAL LINE 1
ELMS> SET TVX 3.2 PASSWORD CELESTIAL
```

These commands set the valid transmission time to 3.2 milliseconds for the FDDI MAC entity of the wiring concentrator GRANDCENTRAL.

2.
```
ELMS> SET SUNSHINESKYWAY LINE 1 TVX 4.8 PASSWORD ALLIGATOR
```

This command sets the valid transmission time to 4.8 milliseconds for the FDDI MAC entity of the DECbridge 500 named SUNSHINESKYWAY.

SET UPDATE SWITCH (Bridge, Concentrator)

The SET UPDATE SWITCH command sets a software switch that enables or disables the down-line loading of firmware upgrades to a DECbridge 500 or a DECconcentrator 500. This command enables or disables the down-line loading of **firmware** upgrades, regardless of the setting of the Down-Line Load software switch (set by the SET LOAD SWITCH command), which controls the down-line loading of **software** to a bridge.

SET UPDATE SWITCH TRUE instructs the device to accept a down-line loaded firmware upgrade. The down-line load process deletes the firmware stored in the device's ROM and replaces it with the upgraded firmware. Digital recommends that you issue this command only when the upgrade tape is installed on the down-line load host. After the down-line load is complete, issue the SET UPDATE SWITCH FALSE command to prevent the device from accepting a down-line loaded firmware upgrade. For more information about down-line loading firmware upgrades, see Section 2.6 in the *DECelms Use* manual.

Format

SET UPDATE SWITCH { TRUE / FALSE } [PASSWORD *password*]

Parameters

TRUE

Instructs the device to accept down-line loaded firmware upgrades.

FALSE

Prevents the device from accepting down-line loaded firmware upgrades.

PASSWORD *password*

Specifies the password of the target DECbridge 500 or DECconcentrator 500. The command fails if the password that you supply does not match the one stored in the target device, if any. If you do not include

PASSWORD and a password, the command fails unless the target device does not have a password set.

If the command domain is KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES, the command acts only on devices that do not have a password set and devices that have a password that matches the one you supply.

Command Domain

SET UPDATE SWITCH can set the Update software switch for:

- A specific DECbridge 500 or DECconcentrator 500 when the command domain is:

  device-id

  where *device-id* is the name or address of the bridge or wiring concentrator.

- All the DECbridge 500 models listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

- All the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS

- All the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN DEVICES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SET, the command verb (see Example 2).

Examples

1.
```
ELMS> USE TAPPAN_ZEE
ELMS> SET UPDATE SWITCH TRUE PASSWORD YONKERS
```

These commands enable the Update software switch on the bridge TAPPAN_ZEE, instructing it to accept a down-line loaded firmware upgrade.

2. `ELMS> SET KNOWN BRIDGES UPDATE SWITCH FALSE`

   This command disables the Update software switch on all the DECbridge 500 models listed in the DECelms registry that do not have a password set. These bridges will not accept a down-line loaded firmware upgrade.

3. `ELMS> SET KNOWN DEVICES UPDATE SWITCH TRUE PASSWORD FDDI`

   This command enables the Update software switch on all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry that have the password FDDI or do not have a password set.

SHOW ADDRESS (Bridge)

The SHOW ADDRESS command displays the forwarding entry for a physical or multicast address or sends it to a file. Depending on the command domain, you can display an entry in the forwarding database of a specific bridge or in the forwarding databases of all the bridges listed in the DECelms registry. For more information about displaying the forwarding entry for a specific address and a full description of the display fields, see Section 4.1.3 in the *DECelms Use* guide. For general information about the bridge forwarding database and address filtering, see Section 4.1 in the *DECelms Use* guide.

Format

SHOW ADDRESS *address* [TO *file-spec*]

Parameters

address

Specifies the *address* of the entry to be displayed. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

SHOW ADDRESS can display an address entry in:

- The forwarding database of a specific bridge when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of the bridge.

- The forwarding databases of all the bridges listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE KNOWN BRIDGES
ELMS> SHOW ADDRESS AA-00-04-41-96-35
```

These commands display the entry for the physical address AA-00-04-41-96-35 in the forwarding databases of all the bridges listed in the DECelms registry.

2.
```
ELMS> SHOW PEACE ADDRESS AA-00-04-84-25-85
```

This command displays the entry for the physical address AA-00-04-84-25-85 in the forwarding database of the bridge PEACE.

3.
```
ELMS> USE PEACE
ELMS> SHOW ADDRESS 09-00-03-36-29-56
```

These commands display the entry for the multicast address 09-00-03-36-29-56 in the forwarding database of the bridge PEACE.

4.
```
ELMS> SHOW TUNKHANNOCK ADDRESS 09-00-03-39-A1-96 TO TUNK.MULTI
```

This command writes the bridge TUNKHANNOCK's entry for the multicast address 09-00-03-39-A1-96 to the file TUNK.MULTI.

SHOW ADDRESSES (Bridge)

The SHOW ADDRESSES command displays the physical or multicast address entries in the forwarding database of a bridge or sends them to a file. For both physical and multicast address entries, you can display all the entries, the entries added by DECelms, the entries added by the bridge's learning process, the entries that are stored in nonvolatile memory, or the inactive entries.

Depending on the command domain, you can display address entries in the forwarding database of a specific bridge or in the forwarding databases of all the bridges listed in the DECelms registry. For more information about displaying address entries and a full description of the display fields, see Section 4.1.2 in the *DECelms Use* guide. For more information about the bridge forwarding database and address filtering, see Section 4.1 in the *DECelms Use* guide.

Format

```
SHOW [ KNOWN       ]
     [ MANAGEMENT  ]
     [ PERMANENT   ]
     [ LEARNED     ]
     [ INACTIVE    ]

{ PHYSICAL  } ADDRESSES [TO file-spec]
{ MULTICAST }
```

Parameters

KNOWN

Displays all the physical or multicast address entries in the forwarding database.

MANAGEMENT

Displays the physical or multicast address entries that were added with the DECelms command ADD ADDRESS. These include both the permanent entries that are stored in both nonvolatile memory (NVRAM) and volatile memory and the entries that are stored only in volatile memory.

PERMANENT

Displays the physical or multicast address entries added with DECelms that are stored in both the bridge's nonvolatile memory (NVRAM) and in its volatile memory. If the bridge's NVRAM is full, this may be a subset of the management entries.

LEARNED

Displays the physical address entries that were added by the bridge's learning process.

INACTIVE

Displays the physical address entries added by the bridge's learning process that the bridge has marked inactive but has not yet purged from its forwarding database. A bridge marks an address entry inactive if it does not see it in the Source Address field of a frame during the aging time in effect for its forwarding database.

PHYSICAL ADDRESSES

Displays the physical address entries.

MULTICAST ADDRESSES

Displays the multicast address entries.

TO *file-spec*

Sends the output to the specified file rather than displaying it on your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

SHOW ADDRESSES can display the address entries in:

- The forwarding database of a specific bridge when the command domain is:

  bridge-id

  where *bridge-id* is the name or address of the bridge.

- The forwarding databases of all the bridges listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE BROOKLYN
ELMS> SHOW INACTIVE PHYSICAL ADDRESSES
```

These commands display all the inactive entries in the forwarding database of the bridge BROOKLYN.

2.
```
ELMS> SHOW KNOWN BRIDGES KNOWN MULTICAST ADDRESSES TO ADDR.LST
```

This command writes all the multicast entries in the forwarding databases of all the bridges listed in the DECelms registry to the file ADDR.LST.

3.
```
ELMS> USE BROOKLYN
ELMS> SHOW MANAGEMENT PHYSICAL ADDRESSES
```

These commands display all the physical address entries in the forwarding database of the bridge BROOKLYN that were added with the DECelms command ADD ADDRESS.

4.
```
ELMS> SHOW KNOWN BRIDGES KNOWN MULTICAST ADDRESSES TO ADDR.LST
```

These commands write all the multicast address entries in the forwarding databases of all the bridges listed in the DECelms registry to the file ADDR.LST.

SHOW CHARACTERISTICS (Bridge, Concentrator)

When a bridge or wiring concentrator is the command domain, the SHOW CHARACTERISTICS command displays all the settable and nonsettable device characteristics (except for the bridge spanning tree parameter settings) or sends the output to a file. SHOW CHARACTERISTICS also displays information about LAN Bridge 100 and LAN Bridge 150 models that are serving as LTM listeners.

Depending on the command domain, you can display the characteristics of a specific bridge, a specific wiring concentrator, or all the bridges, wiring concentrators, or devices listed in the DECelms registry. For more information about displaying device characteristics and a full description of the display fields, see Section 5.2.1 in the *DECelms Use* guide.

Format

SHOW CHARACTERISTICS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW CHARACTERISTICS command can display the characteristics of:

- A specific bridge or wiring concentrator when the command domain is:

  ```
  device-id
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator.

- All the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

- All the wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS
  ```

- All the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE HARVARD
ELMS> SHOW CHARACTERISTICS
```

   These commands display the characteristics of the bridge HARVARD.

2.
```
ELMS> SHOW GRANDCENTRAL CHARACTERISTICS
```

   This command displays the characteristics of the wiring concentrator GRANDCENTRAL.

3.
```
ELMS> SHOW KNOWN BRIDGES CHARACTERISTICS TO CHARS.LIS
```

   This command writes the characteristics of all the bridges listed in the DECelms registry to the file CHARS.LIS.

SHOW CHARACTERISTICS (Ethernet/802.3 Line, FDDI Line)

When a line on a bridge or wiring concentrator is the command domain, the SHOW CHARACTERISTICS command displays all the settable and nonsettable line characteristics (except for the bridge line spanning tree parameter settings) or sends the output to a file. The command is the same for Ethernet/IEEE 802.3 lines and FDDI lines, but the resulting displays differ. The display for an FDDI line includes many characteristics that describe the FDDI MAC entity of the station.

Depending on the command domain, you can display the characteristics of a specific line on a bridge or wiring concentrator, both lines on a bridge, or all the lines on all the bridges, wiring concentrators, or devices listed in the DECelms registry. For more information about displaying line characteristics and a full description of the display fields, see Section 5.2.2 in the *DECelms Use* guide.

Format

SHOW CHARACTERISTICS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW CHARACTERISTICS command can display the characteristics of:

- A specific line on a bridge or wiring concentrator when the command domain is:

  device-id* LINE *line-number

where *device-id* is the name or address of the bridge or wiring concentrator and *line-number* is the line number. (The DECconcentrator 500 has only one line, line 1. The FDDI line on a DECbridge 500 is line 1.) The Line Characteristics display for an FDDI line includes counters that pertain to the FDDI MAC entity of the station.

- Both lines on a bridge when the command domain is:

  ```
  bridge-id KNOWN LINES
  ```

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES KNOWN LINES
  ```

- The line on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS LINE 1
  ```

- All the lines on all the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES KNOWN LINES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE BAYBRIDGE LINE 2
ELMS> SHOW CHARACTERISTICS
```

   These commands display the characteristics of line 2 on the bridge BAYBRIDGE.

2.
```
ELMS> SHOW GRANDCENTRAL LINE 1 CHARACTERISTICS
```

   This command displays the characteristics of the line on the wiring concentrator GRANDCENTRAL.

3.
```
ELMS> SHOW BOURNE KNOWN LINES CHARACTERISTICS TO CHARS.LIS
```

   This command writes the characteristics of both lines on the bridge BOURNE to the file CHARS.LIS.

SHOW CHARACTERISTICS (Physical Port)

When a physical port on a DECbridge 500 or a DECconcentrator 500 is the command domain, the SHOW CHARACTERISTICS command displays the settable and nonsettable physical port characteristics or sends the output to a file. The characteristics displayed are the physical port type, LEM threshold, and PMD type. For more information about displaying physical port characteristics and a full description of the display fields, see Section 5.2.3 in the *DECelms Use* guide.

Format

SHOW CHARACTERISTICS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW CHARACTERISTICS command can display the characteristics of:

- The physical port on a DECbridge 500 or a specific physical port on a DECconcentrator 500 when the command domain is:

  ```
  device-id PHYPORT phyport-id
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator and *phyport-id* is the physical port number. (The physical port number on a DECbridge 500 is 1.)

- All the physical ports on a DECconcentrator 500 when the command domain is:

  ```
  concentrator-id KNOWN PHYPORTS
  ```

where *concentrator-id* is the name or address of the wiring concentrator.

- The physical port on all the DECbridge 500 models listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES PHYPORT 1
```

- All the physical ports on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

```
KNOWN CONCENTRATORS KNOWN PHYPORTS
```

- All the physical ports on all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

```
KNOWN DEVICES KNOWN PHYPORTS
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE BAYBRIDGE PHYPORT 1
ELMS> SHOW CHARACTERISTICS
```

These commands display the characteristics of the physical port on the bridge BAYBRIDGE.

2.
```
ELMS> SHOW GRANDCENTRAL PHYPORT 3C CHARACTERISTICS
```

This command displays the characteristics of physical port 3C on the wiring concentrator GRANDCENTRAL.

3.
```
ELMS> SHOW GRANDCENTRAL KNOWN PHYPORTS CHARACTERISTICS
      TO CHARS.LIS
```

This command writes the characteristics of all the physical ports on the wiring concentrator GRANDCENTRAL to the file CHARS.LIS.

SHOW COUNTERS (Bridge, Concentrator)

When a bridge or a wiring concentrator is the command domain, the SHOW COUNTERS command displays the device counters on your screen (the default) or sends the output to a file. You can instruct DECelms to update the counter values at a specified interval. Depending on the command domain, you can display the counters of a specific bridge, a specific wiring concentrator, or all the bridges, wiring concentrators, or devices listed in the DECelms registry. You cannot show the counters of a bridge that is serving as an LTM listener; in that case, SHOW CHARACTERISTICS is the only valid monitoring command. For more information about displaying device counters and a full description of the display fields, see Section 5.4.1 in the *DECelms Use* guide.

Format

SHOW COUNTERS [EVERY *nn* { SECONDS / MINUTES }] [TO *file-spec*]

Parameters

EVERY *nn* { SECONDS / MINUTES }

Instructs DECelms to update the counter values at the specified interval. Press Return to terminate the display. Note that you must send the output to a file if you use the EVERY phrase when KNOWN BRIDGES, KNOWN CONCENTRATORS, or KNOWN DEVICES is the command domain.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

SHOW COUNTERS

Command Domain

The SHOW COUNTERS command can display the device counters for:

- A specific bridge or wiring concentrator when the command domain is:

  device-id

  where *device-id* is the name or address of the bridge or wiring concentrator.

- All the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES

- All the wiring concentrators listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS

- All the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  KNOWN DEVICES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE CONCORD
ELMS> SHOW COUNTERS EVERY 2 MINUTES
```

These commands instruct DECelms to display the bridge counter values for the bridge CONCORD and to update the display every 2 minutes. To terminate the display, press Return.

2.
```
ELMS> SHOW RIVER_STREET COUNTERS TO RIVER_STREET.COUNTERS
```

This command writes the bridge counter values for the wiring concentrator RIVER_STREET to the file RIVER_STREET.COUNTERS.

3.
```
ELMS> SHOW KNOWN BRIDGES COUNTERS
```

This command displays the bridge counters for all the bridges listed in the DECelms registry.

SHOW COUNTERS (Ethernet/802.3 Line, FDDI Line)

When a bridge or wiring concentrator line is the command domain, the SHOW COUNTERS command displays the line counters on your screen (the default) or sends the output to a file. You can instruct DECelms to update the counter values at a specified interval. The command is the same for Ethernet/IEEE 802.3 lines and FDDI lines, but the resulting displays differ. The display for an FDDI line includes many counters that describe the FDDI MAC entity of the station.

Depending on the command domain, you can display the characteristics of a specific line on a bridge or wiring concentrator, both lines on a bridge, or all the lines on all the bridges, wiring concentrators, or devices listed in the DECelms registry. You cannot display the line counters of a bridge that is serving as an LTM listener; in that case, SHOW CHARACTERISTICS is the only valid monitoring command. For more information about displaying bridge line counters and a full description of the display fields, see Section 5.4.2 in the *DECelms Use* guide.

Format

SHOW COUNTERS [EVERY *nn* { SECONDS / MINUTES }] [TO *file-spec*]

Parameters

EVERY *nn* { SECONDS / MINUTES }

Instructs DECelms to update the counter values at the specified interval. To terminate the display, press Return. Note that you must send the output to a file if you use the EVERY phrase when KNOWN LINES is the command domain.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

SHOW COUNTERS

Command Domain

The SHOW COUNTERS command can display the line counters for:

- A specific line on a bridge or wiring concentrator when the command domain is:

  device-id LINE *line-number*

  where *device-id* is the name or address of the bridge or wiring concentrator and *line-number* is the line number. (The DECconcentrator 500 has only one line, line 1. The FDDI line on a DECbridge 500 is line 1.) The Line Counters display for an FDDI line includes counters that pertain to the FDDI MAC entity of the station.

- Both lines on a bridge when the command domain is:

  bridge-id KNOWN LINES

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES KNOWN LINES

- The line on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  KNOWN CONCENTRATORS LINE 1

- All the lines on all the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  KNOWN DEVICES KNOWN LINES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE HARVARD
ELMS> SHOW LINE 1 COUNTERS EVERY 30 SECONDS
```

These commands display the counters for line 1 of the bridge HARVARD and instruct DECelms to update the display every 30 seconds. To terminate the display, press Return.

2.
```
ELMS> SHOW HARVARD LINE 2 COUNTERS TO HARVARD.2
```

This command writes the counter values for line 2 of the bridge HARVARD to the file HARVARD.2.

3.
```
ELMS> SHOW GRANDCENTRAL LINE 1 COUNTERS
```

This command displays the counter values for the line on the wiring concentrator GRANDCENTRAL.

SHOW COUNTERS (Physical Port)

When a physical port on a DECbridge 500 or a DECconcentrator 500 is the command domain, the SHOW COUNTERS command displays the physical port counters on your screen (the default) or sends the output to a file. You can instruct DECelms to update the counter values at a specified interval. For more information about displaying physical port counters and a full description of the display fields, see Section 5.4.3 in the *DECelms Use* guide.

Format

SHOW COUNTERS [EVERY *nn* { SECONDS / MINUTES }] [TO *file-spec*]

Parameters

EVERY *nn* { SECONDS / MINUTES }

Instructs DECelms to update the counter values at the specified interval. To terminate the display, press Return. Note that you must send the output to a file if you use the EVERY phrase when KNOWN PHYPORTS is the command domain.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW COUNTERS command can display the physical port counters for:

- The physical port on a DECbridge 500 or a specific physical port on a DECconcentrator 500 when the command domain is:

  device-id PHYPORT *phyport-id*

where *device-id* is the name or address of the bridge or wiring concentrator and *phyport-id* is the physical port number. (The physical port number on a DECbridge 500 is 1.)

- All the physical ports on a DECconcentrator 500 when the command domain is:

  ```
  concentrator-id KNOWN PHYPORTS
  ```

  where *concentrator-id* is the name or address of the wiring concentrator.

- The physical port on all the DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES PHYPORT 1
  ```

- All the physical ports on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS KNOWN PHYPORTS
  ```

- All the physical ports on all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES KNOWN PHYPORTS
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1. ```
   ELMS> USE BAYBRIDGE PHYPORT 1
   ELMS> SHOW COUNTERS EVERY 2 MINUTES
   ```

   These commands display the counters of the physical port on the DECbridge 500 named BAYBRIDGE. DECelms updates the counter values every 2 minutes.

2. ```
   ELMS> SHOW GRANDCENTRAL PHYPORT 4B CHARACTERISTICS
   ```

   This command displays the counter values of physical port 4B on the wiring concentrator GRANDCENTRAL.

3.
```
ELMS> SHOW GRANDCENTRAL KNOWN PHYPORTS COUNTERS
      TO CHARS.LIS
```

This command writes the counter values of all the physical ports on the wiring concentrator GRANDCENTRAL to the file CHARS.LIS.

SHOW DOMAIN (DECelms)

The SHOW DOMAIN command displays the default domain; that is, the entity to which a DECelms command will apply unless you specify otherwise in the command itself. The USE command sets the default domain. For more information about displaying the default domain, see Section 1.10.3 in the *DECelms Use* guide.

Format

SHOW DOMAIN

Parameters

None.

Command Domain

SHOW DOMAIN is valid in all command domains.

Example

```
ELMS> USE KNOWN BRIDGES
ELMS> SHOW DOMAIN
```

The SHOW DOMAIN command displays the following information:

```
Current Domain: KNOWN BRIDGES
```

SHOW PROTOCOL (Bridge)

The SHOW PROTOCOL command displays the protocol entry for a specific protocol, indicating whether the disposition is set to FORWARD or FILTER. It also displays the settings of the OTHER TYPES, OTHER SAPS, and OTHER SNAPS entries that control the disposition of frames with protocol values for which there are no explicit protocol entries. Depending on the command domain, you can display an entry in the protocol database of a specific bridge or in the protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry.

NOTE

To display all the entries or categories of entries in the protocol database of a bridge, see the description of the SHOW PROTOCOLS command.

For information about displaying specific protocol database entries, see Section 4.3.8.1 in the *DECelms Use* guide. For general information about protocol filtering and the protocol database, see Section 4.3 in the *DECelms Use* guide.

Format

SHOW PROTOCOL { *protocol-id* | OTHER TYPES | OTHER SAPS | OTHER SNAPS } VALUE *value*
[TO *file-spec*]

Parameters

protocol-id

Specifies the value of the protocol entry to be displayed.

- For ETHERNET TYPE entries, the value is 2 hexadecimal bytes in the form *nn-nn*.
- For IEEE 802.2 LSAP entries, the value is 1 hexadecimal byte in the form *nn*.

- For IEEE 802.2 SNAP entries, the value is 5 hexadecimal bytes in the form *nn-nn-nn-nn-nn*.

OTHER TYPES

Displays the entry that controls the disposition of Ethernet frames with Protocol Type values for which there are no explicit entries.

OTHER SAPS

Displays the entry that controls the disposition of IEEE 802.3 frames with IEEE 802.2 LSAP protocol codes for which there are no explicit entries.

OTHER SNAPS

Displays the entry that controls the disposition of IEEE 802.2 SNAP frames with Protocol IDs for which there are no explicit entries.

TO *file-spec*

Sends the output to the specified file rather than displaying it on your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

SHOW PROTOCOL can display a protocol entry in:

- The protocol database of a specific LAN Bridge 200 or DECbridge 500 when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of the bridge.

- The protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> SHOW PROTOCOL 08-00-2B-60-03
```

These commands display the entry in the protocol database of the bridge LONGFELLOW for the IEEE 802.2 SNAP Protocol ID 08-00-2B-60-03.

2.
```
ELMS> SHOW KNOWN BRIDGES PROTOCOL 08-00-2B-60-03 TO SNAP.DAT
```

This command writes the entries for the IEEE 802.2 SNAP Protocol ID 08-00-2B-60-03 in the protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry to the file SNAP.DAT.

3.
```
ELMS> USE KNOWN BRIDGES
ELMS> SHOW PROTOCOL OTHER TYPES TO OTHERS.LIS
```

These commands show the value of the OTHER TYPES entry in the protocol databases of all the bridges listed in the DECelms registry. DECelms writes this information to the file OTHERS.LIS. The OTHER TYPES entry controls the disposition of Ethernet frames with Protocol Types for which there are no explicit protocol entries.

SHOW PROTOCOLS (Bridge)

The SHOW PROTOCOLS command displays all the entries or categories of entries in the protocol database of a LAN Bridge 200 or a DECbridge 500. You can display the Ethernet Protocol Type entries, the IEEE 802.2 LSAP protocol entries, or the IEEE 802.2 SNAP Protocol ID entries. You must further refine the display by instructing DECelms to display all the entries (MANAGEMENT), or only those entries stored in the bridge's nonvolatile memory (PERMANENT).

NOTE

To display the entry for a specific protocol or the OTHER TYPES, OTHER SAPS, or OTHER SNAPS entries, see the SHOW PROTOCOL command description.

Depending on the command domain, you can display the entries in the protocol database of a specific bridge or in the protocol databases of all the bridges listed in the DECelms registry. For more information about displaying protocol entries and a full description of the display fields, see Section 4.3.8.2 in the *DECelms Use* guide. For general information about protocol filtering and the protocol database, see Section 4.3 in the *DECelms Use* guide.

Format

SHOW [MANAGEMENT | PERMANENT] PROTOCOLS

{ ETHERNET TYPES | 802 SAPS | 802 SNAPS } [TO *file-spec*]

Parameters

MANAGEMENT

Displays all the entries in the protocol database. This is the default. These entries are called management entries because they were added with the DECelms command ADD PROTOCOL.

PERMANENT

Displays the management protocol entries that are stored in both the bridge's nonvolatile memory (NVRAM) and volatile memory. The bridge retains these entries even if it loses power. If the NVRAM is full, this may be a subset of the management entries.

ETHERNET TYPES

Displays the entries that control the disposition of Ethernet frames based on the value in the Protocol Type field.

802 SAPS

Displays the entries that control the disposition of IEEE 802.3 frames based on the value in the DSAP and SSAP fields.

802 SNAPS

Displays the entries that control the disposition of IEEE 802.2 SNAP frames based on the value in the Protocol ID field.

TO *file-spec*

Sends the output to the specified file rather than displaying it on your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

SHOW PROTOCOLS can display the protocol entries in:

- The protocol database of a specific LAN Bridge 200 or DECbridge 500 when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of the bridge.

- The protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE LONGFELLOW
ELMS> SHOW MANAGEMENT PROTOCOLS 802 SAPS
```

These commands display all the IEEE 802.2 LSAP protocol entries in the protocol database of the bridge LONGFELLOW.

2.
```
ELMS> SHOW KNOWN BRIDGES MANAGEMENT PROTOCOLS ETHERNET TYPES TO ALL.LST
```

This command shows the Ethernet Protocol Type entries in the protocol databases of all the LAN Bridge 200 and DECbridge 500 models listed in the DECelms registry. DECelms writes the output to the file ALL.LST.

SHOW SIF CONFIGURATION (FDDI Station)

The SHOW SIF CONFIGURATION command displays configuration information for any station that complies with the FDDI Station Management (SMT) ANSI draft standard Revision 5.1, regardless of the manufacturer of the station. The display shows the station type, station configuration and connection policies, the internal configuration of the PHY and MAC entities, and other configuration information.

You must include the name or 48-bit address of the target station and VIA *concentrator-id*, where *concentrator-id* is the name or 48-bit address of any active DECconcentrator 500.

The DECconcentrator 500 serves as an SMT agent for your request. It responds to the SHOW SIF CONFIGURATION command by sending an SMT Status Information Frame (SIF) Configuration Request to the target station. The DECconcentrator 500 then interprets the station's SIF Configuration Response or SIF Configuration Request Denied frame and sends the information to the DECelms system. DECelms displays the information on your screen or writes it to a file.

Format

SHOW SIF CONFIGURATION *station-id* VIA *concentrator-id* [TO *file-spec*]

Parameters

station-id

Specifies the name or address of the target FDDI station. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*. You cannot use a name for the station unless it is registered in the DECelms registry.

VIA *concentrator-id*

Specifies the name or address of the DECconcentrator 500 that serves as the SMT agent for your request. Any active DECconcentrator 500 can serve as the SMT agent. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the file name but not the node name, device name, or directory. DECelms places the file in the current default directory.

Command Domain

The SHOW SIF CONFIGURATION command can display the characteristics of a specific FDDI station that complies with the FDDI Station Management (SMT) ANSI draft standard Revision 5.1. You must specify the *station-id* of the target station directly after the command phrase SHOW SIF CONFIGURATION. The *station-id* can be the name or 48-bit address of the station. You cannot use the name unless it is registered in the DECelms registry.

You must also include VIA *concentrator-id* to specify a DECconcentrator 500 to serve as the SMT agent for your request, where *concentrator-id* is the name or address of any DECconcentrator 500.

Examples

1.
```
ELMS> SHOW SIF CONFIGURATION 07-00-2C-8A-9B-13 VIA GRANDCENTRAL
```

This command displays the configuration of the FDDI station with the address 07-00-2C-8A-9B-13, a workstation manufactured by another vendor. The wiring concentrator GRANDCENTRAL serves as the SMT agent, sending a SIF Configuration Request to the workstation and relaying the information back to DECelms.

2.
```
ELMS> SHOW SIF CONFIGURATION BAYBRIDGE VIA GRANDCENTRAL
```

This command displays SMT SIF configuration information for the station BAYBRIDGE, a DECbridge 500 that is registered in the DECelms registry. The DECconcentrator 500 GRANDCENTRAL serves as the SMT agent for the request.

3.
```
ELMS> SHOW SIF CONFIGURATION 07-00-3D-89-0B-36 VIA 08-00-2B-98-4B-08
      TO SIFCONFIG.DAT
```

This command writes the SIF configuration information for the station with the address 07-00-3D-89-0B-36 to the file SIFCONFIG.DAT. The DECconcentrator 500 with the address 08-00-2B-98-4B-08 serves as the SMT agent.

SHOW SIF OPERATION (FDDI Station)

The SHOW SIF OPERATION command displays the status, characteristics, and counters of any station that complies with the FDDI Station Management (SMT) ANSI draft standard Revision 5.1, regardless of the manufacturer of the station. The display shows information about each MAC entity and physical port (PHY entity) on the station.

You must include the name or 48-bit address of the target station and VIA *concentrator-id*, where *concentrator-id* is the name or 48-bit address of any active DECconcentrator 500.

The DECconcentrator 500 serves as an SMT agent for your request. It responds to the SHOW SIF OPERATION command by sending an SMT Status Information Frame (SIF) Configuration Request to the target station. The DECconcentrator 500 then interprets the station's SIF Configuration Response or SIF Configuration Request Denied frame and sends the information to the DECelms system. DECelms displays the information on your screen or writes it to a file.

Format

SHOW SIF OPERATION *station-id* VIA *concentrator-id* [TO *file-spec*]

Parameters

station-id

Specifies the name or address of the target FDDI station. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*. You cannot use a name for the station unless it is registered in the DECelms registry.

VIA *concentrator-id*

Specifies the name or address of the DECconcentrator 500 that serves as the SMT agent for your request. Any active DECconcentrator 500 can serve as the SMT agent. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the file name but not the node name, device name, or directory. DECelms places the file in the current default directory.

Command Domain

The SHOW SIF OPERATION command can display the operational state of a specific FDDI station that complies with the FDDI Station Management (SMT) ANSI draft standard Revision 5.1. You must specify the *station-id* of the target station directly after the command phrase SHOW SIF OPERATION. The *station-id* can be the name or 48-bit address of the station. You cannot use the name unless it is registered in the DECelms registry.

You must also include VIA *concentrator-id* to specify a DECconcentrator 500 to serve as the SMT agent for your request, where *concentrator-id* is the name or address of any DECconcentrator 500.

Examples

1.
```
ELMS> SHOW SIF OPERATION 06-00-3C-31-9D-43 VIA NORTHSTATION
```

This command displays the status, characteristics, and counters of the FDDI station with the address 06-00-3C-31-9D-43, a wiring concentrator manufactured by another vendor. The wiring concentrator NORTHSTATION serves as the SMT agent, sending a SIF OPERATION Request to the workstation and relaying the information back to DECelms.

2.
```
ELMS> SHOW SIF OPERATION SUNSHINESKYWAY VIA PENNSTATION
```

This command displays SMT SIF operation information for the station SUNSHINESKYWAY, a DECbridge 500 that is registered in the DECelms registry. The DECconcentrator 500 PENNSTATION serves as the SMT agent for the request.

3.
```
ELMS> SHOW SIF OPERATION 07-00-3D-89-0B-36 VIA 08-00-2B-98-4B-08
      TO SIFOPER.DAT
```

This command writes the SIF operation information for the station with the address 07-00-3D-89-0B-36 to the file SIFOPER.DAT. The DECconcentrator 500 with the address 08-00-2B-98-4B-08 serves as the SMT agent.

SHOW MAP (FDDI Ring)

The SHOW MAP command creates a map of the FDDI ring, showing the name, station type, station ID, MAC addresses, active physical ports (for wiring concentrators), and connections of the stations on the ring. The ring must contain a sufficient number of stations that comply with the FDDI Station Management (SMT) ANSI draft standard Revision 5.1. (The station manufacturer is irrelevant.)

You must include VIA *concentrator-id*, where *concentrator-id* is the name or 48-bit address of any active DECconcentrator 500. The DECconcentrator 500 serves as an SMT agent for your request. It responds to the SHOW MAP command by sending an SMT Status Information Frame (SIF) Configuration Request to each station on the ring. The DECconcentrator 500 then uses the SIF Configuration Response frames to create the map information and sends it to the DECelms system. DECelms displays the MAP on your screen or writes it to a file.

Format

SHOW MAP VIA *concentrator-id* [TO *file-spec*]

Parameters

VIA *concentrator-id*

Specifies the name or address of the DECconcentrator 500 that serves as the SMT agent for your request. Any active DECconcentrator 500 can serve as the SMT agent. The address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*.

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the file name but not the node name, device name, or directory. DECelms places the file in the current default directory.

Command Domain

The SHOW MAP command can display a map of any ring with a sufficient number of stations that comply with the FDDI Station Management (SMT) ANSI draft standard Revision 5.1. You must include VIA *concentrator-id* to specify a DECconcentrator 500 to serve as the SMT agent for your request, where *concentrator-id* is the name or address of any active DECconcentrator 500.

Examples

1.
```
ELMS> SHOW MAP VIA NORTHSTATION
```

   This command displays a map of the FDDI ring on the DECelms screen. The wiring concentrator NORTHSTATION serves as the SMT agent, sending SIF Configuration Request frames to the stations on the ring and using the responses to build the map.

2.
```
ELMS> SHOW MAP VIA 08-00-2B-99-3A-3C TO MAP.TXT
```

   This command writes a map of the FDDI ring to the file MAP.TXT, which DECelms places in the current default directory. The DECconcentrator 500 with the address 08-00-2B-99-3A-3C serves as the SMT agent for the request.

SHOW SPANNING CHARACTERISTICS (Bridge)

When a bridge is the command domain, the SHOW SPANNING CHARACTERISTICS command displays all the settable and nonsettable spanning tree parameters for the bridge. You can display the output on your screen (the default) or send it to a file. You cannot display the spanning tree parameters for a bridge that is serving as an LTM listener; in that case, SHOW CHARACTERISTICS is the only valid monitoring command.

Depending on the command domain, you can display spanning tree parameters for a specific bridge or for all the bridges listed in the DECelms registry. For more information about displaying bridge spanning tree parameters and a full description of the display fields, see Section 5.3.1 in the *DECelms Use* guide.

Format

SHOW SPANNING CHARACTERISTICS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW SPANNING CHARACTERISTICS command can display the bridge spanning tree parameter values for:

- A specific bridge when the command domain is:

  ```
  bridge-id
  ```

  where *bridge-id* is the name or address of a bridge.

- All the bridges listed in the DECelms registry when the command domain is:

```
KNOWN BRIDGES
```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE FLOOR4TO5
ELMS> SHOW SPANNING CHARACTERISTICS
```

These commands display the spanning tree parameter values for the bridge FLOOR4TO5.

2.
```
ELMS> SHOW KNOWN BRIDGES SPANNING CHARACTERISTICS TO SPAN.LST
```

This command writes the spanning tree parameter values for all the bridges listed in the DECelms registry to the file SPAN.LST.

SHOW SPANNING CHARACTERISTICS (Bridge Line)

When a bridge line is the command domain, the SHOW SPANNING CHARACTERISTICS command displays the values of all the settable and nonsettable spanning tree parameters for the line or sends the output to a file. You cannot display the line spanning tree parameters for a bridge that is serving as an LTM listener; in that case, SHOW CHARACTERISTICS is the only valid monitoring command.

Depending on the command domain, you can display spanning tree parameters for a specific line on a bridge, both lines on a bridge, or both lines on all the bridges listed in the DECelms registry. For more information about displaying line spanning tree parameters and a full description of the display fields, see Section 5.3.2 in the *DECelms Use* guide.

Format

SHOW SPANNING CHARACTERISTICS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW SPANNING CHARACTERISTICS command can display the line spanning tree parameter values for:

- A specific line on a bridge when the command domain is:

  bridge-id LINE *line-number*

  where *bridge-id* is the name or address of the bridge and *line-number* is the line number.

- Both lines on a bridge when the command domain is:

  bridge-id KNOWN LINES

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  KNOWN BRIDGES KNOWN LINES

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE MYSTICTOBIN KNOWN LINES
ELMS> SHOW SPANNING CHARACTERISTICS
```

These commands display the spanning tree parameters for both lines of the bridge MYSTICTOBIN.

2.
```
ELMS> SHOW FLOOR4TO5 LINE 1 SPANNING CHARACTERISTICS
```

This command displays the spanning tree parameter values for line 1 on the bridge FLOOR4TO5.

3.
```
ELMS> USE KNOWN BRIDGES KNOWN LINES
ELMS> SHOW SPANNING CHARACTERISTICS TO SPANCHARS.LIS
```

These commands write the spanning tree parameters for both lines on all the bridges listed in the DECelms registry to the file SPANCHARS.LIS.

SHOW STATUS (Bridge, Concentrator)

When a bridge or wiring concentrator is the command domain, the SHOW STATUS command displays the current operational status of the device or sends the output to a file. Depending on the command domain, you can display the status of a specific bridge, a specific wiring concentrator, or all the bridges, wiring concentrators, or devices listed in the DECelms registry. You cannot display the status of a bridge that is serving an an LTM listener; in that case, SHOW CHARACTERISTICS is the only valid monitoring command. For more information about displaying device status and a full description of the display fields, see Section 5.1.1 in the *DECelms Use* guide.

Format

SHOW STATUS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW STATUS command can display the device status for:

- A specific bridge or wiring concentrator when the command domain is:

  ```
  device-id
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator.

- All the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES
  ```

- All the wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS
  ```

- All the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE CONCORD
ELMS> SHOW STATUS
```

These commands display the status of the bridge CONCORD.

2.
```
ELMS> SHOW KNOWN BRIDGES STATUS
```

This command displays the status of all the bridges listed in the DECelms registry.

3.
```
ELMS> SHOW GRANDCENTRAL STATUS TO GC.TXT
```

This command writes the status of the wiring concentrator GRANDCENTRAL to the file GC.TXT

4.
```
ELMS> USE KNOWN DEVICES
ELMS> SHOW STATUS
```

These commands display the status of all the bridges and wiring concentrators listed in the DECelms registry.

SHOW STATUS (Ethernet/802.3 Line, FDDI Line)

When a bridge or wiring concentrator line is the command domain, the SHOW STATUS command displays the operational state of the line or sends the output to a file. The command is the same for Ethernet/IEEE 802.3 lines and FDDI lines, but the resulting displays differ. The display for an FDDI line includes many fields that describe the FDDI MAC entity of the station. You cannot display the status of a line on a bridge that is serving as an LTM listener; in that case, SHOW CHARACTERISTICS is the only valid monitoring command.

Depending on the command domain, you can display the operational state of a specific line on a bridge or wiring concentrator, both lines on a bridge, or all the lines on all the bridges, wiring concentrators, or devices listed in the DECelms registry. For more information about displaying bridge line status and a full description of the display fields, see Section 5.1.2.1 and Section 5.1.2.2 in the *DECelms Use* guide.

Format

SHOW STATUS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW STATUS command can display the operational state of:

- A specific line on a bridge or wiring concentrator when the command domain is:

  ```
  device-id LINE line-number
  ```

where *device-id* is the name or address of the bridge or wiring concentrator and *line-number* is the line number. (The DECconcentrator 500 has only one line, line 1. The FDDI line on a DECbridge 500 is line 1.) The display for an FDDI line includes many characteristics that describe the FDDI MAC entity of the station.

- Both lines on a bridge when the command domain is:

  ```
  bridge-id KNOWN LINES
  ```

  where *bridge-id* is the name or address of the bridge.

- Both lines on all the bridges listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES KNOWN LINES
  ```

- The line on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS LINE 1
  ```

- All the lines on all the bridges and wiring concentrators listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES KNOWN LINES
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE CONCORD LINE 1
ELMS> SHOW STATUS
```

These commands display the operational state of line 1 on the bridge CONCORD.

2.
```
ELMS> SHOW GRANDCENTRAL LINE 2 STATUS
```

This command displays the operational state of the line on the wiring concentrator GRANDCENTRAL.

3.
```
ELMS> USE BU KNOWN LINES
ELMS> SHOW STATUS TO BU.STAT
```

These commands write the status of both lines on the bridge BU to the file BU.STAT.

SHOW STATUS (Physical Port)

When a physical port on a DECbridge 500 or a DECconcentrator is the command domain, the SHOW STATUS command displays the operational status of the physical port or sends the output to a file. For more information about displaying physical port status and a full description of the display fields, see Section 5.1.3 in the *DECelms Use* guide.

Format

SHOW STATUS [TO *file-spec*]

Parameter

TO *file-spec*

Sends the output to the specified file rather than to your screen. You can specify the directory and filename, but not the node name or the device name.

Command Domain

The SHOW STATUS command can display the status of:

- The physical port on a DECbridge 500 or a specific physical port on a DECconcentrator 500 when the command domain is:

  ```
  device-id PHYPORT phyport-id
  ```

  where *device-id* is the name or address of the bridge or wiring concentrator and *phyport-id* is the physical port number. (The physical port number on a DECbridge 500 is 1.)

- All the physical ports on a DECconcentrator 500 when the command domain is:

  ```
  concentrator-id KNOWN PHYPORTS
  ```

  where *concentrator-id* is the name or address of the wiring concentrator.

- The physical port on all the DECbridge 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN BRIDGES PHYPORT 1
  ```

- All the physical ports on all the DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN CONCENTRATORS KNOWN PHYPORTS
  ```

- All the physical ports on all the DECbridge 500 and DECconcentrator 500 models listed in the DECelms registry when the command domain is:

  ```
  KNOWN DEVICES KNOWN PHYPORTS
  ```

You can specify the entity in a separate USE command (see Example 1) or specify the entity directly after SHOW, the command verb (see Example 2).

Examples

1.
```
ELMS> USE BAYBRIDGE PHYPORT 1
ELMS> SHOW STATUS
```

   These commands display the status of the physical port on the DECbridge 500 named BAYBRIDGE.

2.
```
ELMS> SHOW GRANDCENTRAL PHYPORT 1C STATUS
```

   This command displays the status of physical port 1C on the wiring concentrator GRANDCENTRAL.

3.
```
ELMS> SHOW GRANDCENTRAL KNOWN PHYPORTS STATUS
      TO STATUS.LIS
```

   This command writes the status of all the physical ports on the wiring concentrator GRANDCENTRAL to the file STATUS.LIS.

START ALARM (DECelms)

The START ALARM command enables the display of event messages on your terminal. Event messages are generated by the device listener function when a new device transmits on the network or by the background poller function when a device changes state. The STOP ALARM command disables the display of event messages. For more information on controlling the display of event messages, see Section 1.13 in the *DECelms Use* guide.

Format

START ALARM

Command Domain

START ALARM is valid in all command domains.

Example

```
ELMS> START ALARM
```

This command enables the display of event messages on your terminal. You would use this command if a previous STOP ALARM command stopped the display of event messages.

START ECHO (DECelms)

The START ECHO command enables the display of commands and responses when DECelms command files are processed within DECelms. This causes the commands and responses to appear on the screen. For more information about using command files of DECelms commands, see Section 1.7 in the *DECelms Use* guide.

Format

START ECHO

Parameters

None.

Command Domain

START ECHO is valid in all command domains.

Example

```
ELMS> STOP ECHO
ELMS> @BRIDGECHECK.COM
ELMS> START ECHO
```

These commands first instruct DECelms not to display output on the screen, and then they execute a command file of DECelms commands. The START ECHO command instructs DECelms to resume sending output to the screen.

START LISTENER (DECelms)

The START LISTENER command starts the device listener function, which automatically registers new devices in the DECelms registry. The device listener function runs in the background and does not interfere with other DECelms commands. Alternatively, you can start the device listener function during the DECelms installation procedure. The STOP LISTENER command stops the device listener function.

NOTE

The device listener function conflicts with other applications, such as NMCC/VAX ETHERnim, that use the MOP remote console channel in shared default mode on the VMS system running DECelms. You cannot start the device listener function if another application is using the MOP remote console channel.

You can set the duration, the length of time that the device listener function listens for new devices. You can also set the idle time, the time between durations when the device listener function does not listen for new devices.

The device listener function listens to MOP system identification messages to see if there are any new devices transmitting on the network. When it hears a new device, the device listener function:

- Queries the device for additional information and registers the device in the DECelms registry
- Enters an event description in the event log
- Sends an event message to the message window of the DECelms screen display

For more information on controlling the device listener function, see Section 1.11.3 in the *DECelms Use* manual.

START LISTENER

Format

START LISTENER [DURATION *nn* { SECONDS / MINUTES }]
[IDLE_TIME *nn* { SECONDS / MINUTES }]

Parameters

[DURATION *nn* { SECONDS / MINUTES }]

Sets the duration to be *nn* seconds or minutes. The default value is 12 minutes. The duration is the the length of time that the device listener function listens for new devices on the MOP remote console channel.

[IDLE_TIME *nn* { SECONDS / MINUTES }]

Sets the idle time to be *nn* seconds or minutes. The default value is 18 minutes. The idle time is the pause between durations when the device listener function does not listen for new devices on the MOP remote console channel.

Command Domain

START LISTENER is valid in all command domains.

Example

```
ELMS> START LISTENER
```

This command starts the device listener function with the default duration of 12 minutes and the default idle time of 30 minutes.

```
ELMS> START LISTENER DURATION 15 MINUTES IDLE_TIME 45 MINUTES
```

This command starts the device listener function and instructs it to listen for new devices for 15 minutes, wait for 45 minutes, and then to repeat the cycle continuously.

START POLLER (DECelms)

The START POLLER command enables the background poller function, causing it to poll the devices listed in the DECelms registry and generate event descriptions and messages when it detects device state changes. Alternatively, you can start the background poller function during the DECelms installation procedure. The STOP POLLER command disables the background poller function.

You can set the pause time, the pause between polling each device listed in the DECelms registry. The pause time prevents the burst of messages that might result if all the devices were polled (or responded) at once. You can also set the idle time, the pause between each complete poll of the devices listed in the DECelms registry. When the background poller function has completed a poll of the devices in the DECelms registry, it waits for the idle time and then polls the list again.

The background poller function maintains a database of device states and recognizes events if the state information returned by the polled device is different. When it detects a change in device state, the background poller function:

- Enters an event description in the event log
- Sends an event message to the message window of the DECelms screen display
- Updates its device state database.

For more information on controlling the background poller function, see Section 1.12.2 in the *DECelms Use* manual.

Format

START POLLER [PAUSE *nn* { SECONDS / MINUTES }]
[IDLE_TIME *nn* { SECONDS / MINUTES }]

Parameters

[PAUSE *nn* { SECONDS / MINUTES }]

Sets the pause time to be *nn* seconds or minutes. The pause time is the pause between polling each device listed in the DECelms registry. The pause time prevents bursts of messages that could disrupt normal network operation. The default value is 0 seconds, meaning that the background poller function polls the devices as rapidly as possible.

[IDLE_TIME *nn* { SECONDS / MINUTES }]

Sets the idle time to be *nn* seconds or minutes. The idle time is the pause between each polling sequence; that is, the time that the background poller function waits between each session of polling all the devices listed in the DECelms registry. The default idle time is 0 seconds, meaning that the background poller function continuously polls the devices listed in the DECelms registry.

Command Domain

START POLLER is valid in all command domains.

Examples

1.
```
ELMS> START POLLER
```

This command starts the background poller function with the default pause time of 0 seconds and the default idle time of 0 seconds. The background poller function will continuously poll the devices listed in the DECelms registry as rapidly as possible.

2.
```
ELMS> START POLLER PAUSE 3 SECONDS IDLE_TIME 5 MINUTES
```

This command starts the background poller function and sets the pause time to 3 seconds and the idle time to 5 minutes. The background poller function will pause 3 seconds between polling each device listed in the DECelms registry and wait 5 minutes between each poll of the list of devices.

STOP ALARM (DECelms)

The STOP ALARM command stops the display of event messages on your terminal. For more information on controlling the display of event messages, see Section 1.13 in the *DECelms Use* guide.

Format

STOP ALARM

Command Domain

STOP ALARM is valid in all command domains.

Example

```
ELMS> STOP ALARM
```

This command stops the display of event messages on your terminal.

STOP ECHO (DECelms)

The STOP ECHO command disables the display of commands and responses when DECelms command files are processed within DECelms. This prevents commands and responses from appearing on the screen. When you run DECelms command files in this manner, use the TO *file-spec* parameter to write the output to a file. For more information about using command files of DECelms commands, see Section 1.7 in the *DECelms Use* guide.

Format

STOP ECHO

Parameters

None.

Command Domain

STOP ECHO is valid in all command domains.

Example

```
ELMS> STOP ECHO
ELMS> @BRIDGECHECK.COM
```

These commands first instruct DECelms not to send output to the screen, and then they execute a command file of DECelms commands. (In this example, the commands in the command file use the TO *file-spec* parameter to send their output to files rather than to the screen.)

STOP LISTENER (DECelms)

The STOP LISTENER command stops the device listener function, suspending the automatic registration of new devices in the DECelms registry. You should stop the device listener function while using an application (other than NMCC/VAX ETHERnim) that uses the MOP remote console protocol. (The device listener function coexists with NMCC/VAX ETHERnim, but conflicts with other uses of the MOP remote console protocol on the VMS system running DECelms.) The START LISTENER command starts the device listener function. For more information on controlling the device listener function, see Section 1.11.3 in the *DECelms Use* manual.

Format

STOP LISTENER

Command Domain

STOP LISTENER is valid in all command domains.

Example

```
ELMS> STOP LISTENER
```

This command stops the device listener function.

STOP POLLER (DECelms)

The STOP POLLER command stops the background poller function, suspending the polling of the devices listed in the DECelms registry and the generation of state change event descriptions and messages. The START POLLER command starts the background poller function. For more information on controlling the background poller function, see Section 1.12.2 in the *DECelms Use* manual.

Format

STOP POLLER

Command Domain

STOP POLLER is valid in all command domains.

Example

```
ELMS> STOP POLLER
```

This command stops the background poller function.

USE (DECelms)

The USE command sets the default domain; that is, the entity to which subsequent commands apply unless you specify otherwise in the command itself. You can partially define the command domain with the USE command and then further define it in a DECelms management command. The command domain for a DECelms command is a combination of the domain information given in the DECelms command and the default domain currently in effect. For more information about DECelms entities and domains, see Section 1.9 and Section 1.10 in the *DECelms Use* guide.

Format

USE [*bridge-id* | *concentrator-id* | KNOWN BRIDGES | KNOWN CONCENTRATORS | KNOWN DEVICES] [LINE *line-number* | KNOWN LINES | PHYPORT *phyport-id* | KNOWN PHYPORTS]

Parameters

bridge-id

Specifies the bridge to which subsequent DECelms commands will apply. The *bridge-id* can be either the bridge's name or its address. The bridge address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*. If you use the bridge name, it must already be defined in the DECelms registry.

concentrator-id

Specifies the wiring concentrator to which subsequent DECelms commands will apply. The *concentrator-id* can be either the wiring concentrator's name or its address. The wiring concentrator address must be 12 hexadecimal digits in the form *nn-nn-nn-nn-nn-nn*. If you use the wiring concentrator name, it must already be defined in the DECelms registry.

KNOWN BRIDGES

Instructs DECelms to apply subsequent commands to all the bridges listed in the DECelms registry.

KNOWN CONCENTRATORS

Instructs DECelms to apply subsequent commands to all the wiring concentrators listed in the DECelms registry.

KNOWN DEVICES

Instructs DECelms to apply subsequent commands to all the bridges and wiring concentrators listed in the DECelms registry.

LINE *line-number*

Instructs DECelms to apply subsequent commands to the specified line, where *line-number* is the line number.

KNOWN LINES

Instructs DECelms to apply subsequent commands to all the lines on the specified device or devices (depending on the other domain information given).

PHYPORT *phyport-id*

Instructs DECelms to apply subsequent commands to the specified physical port, where *phyport-id* is the physical port number.

KNOWN PHYPORTS

Instructs DECelms to apply subsequent commands to all the physical ports on the specified device or devices (depending on the other domain information given).

Command Domain

USE is valid in all command domains.

Examples

1. ELMS> USE TOWER

This command sets the default domain to be the bridge named TOWER. DECelms will apply subsequent commands to this bridge unless you supply a different entity in the command itself.

2. `ELMS> USE LEVEL5TO6 LINE 2`

   This command sets the default domain to be line 2 on the bridge named LEVEL5TO6.

3. `ELMS> USE KNOWN BRIDGES KNOWN LINES`

   This command sets the default domain to be both lines on all the bridges listed in the DECelms registry.

4. `ELMS> USE GRANDCENTRAL PHYPORT 2B`

   This command sets the default domain to be physical port 2B on the wiring concentrator GRANDCENTRAL.

5. `ELMS> USE PENNSTATION KNOWN PHYPORTS`

   This command sets the default domain to be all the physical ports on the wiring concentrator PENNSTATION.

Index

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